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Local government financial reporting: A survey of Western Australian practice and the examination of some explanatory economic and political factors

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**LOCAL GOVERNMENT FINANCIAL REPORTING: A SURVEY OF
WESTERN AUSTRALIAN PRACTICE AND THE EXAMINATION OF
SOME EXPLANATORY ECONOMIC AND POLITICAL FACTORS**

BY

Andrew N Priest

**A Thesis Submitted in Partial Fulfilment of the
Requirements for the Award of**

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USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

ABSTRACT

This thesis is an exploratory study that examines a measure of the extent and nature of financial reporting by Western Australian local governments against the requirements and recommendations specified in the legislation, regulations and accounting standards. In addition, several economic and political factors which may provide some explanation for the variation in reporting practices of Western Australian local government councils is examined.

Three disclosure measures are reported to provide descriptive information about Western Australian local government councils' compliance with mandatory reporting requirements, their voluntary disclosure of additional financial information and their policy of disseminating their annual financial information to the municipality.

Pearson Product Moment Correlation coefficients are established to measure the relationship between the economic and political factors and the disclosure indexes. Linear regression models are developed to assess the explanatory power of these economic and political factors in relation to councils' identified reporting practices in the financial years, 1990/91 and 1991/92.

The survey results indicate, that as expected, councils in the main comply with the accounting directions specified in the state government's legislation and regulations. In addition, to the regulatory reporting requirements, the Local Government Act 1960-1982 allows councils to disclose additional financial information considered necessary or desirable. The financial statements were examined for voluntarily adoption of Australian Accounting

Standard AAS 27 "Financial Reporting by Local Governments" and the disclosure of additional financial information in line with private sector reporting practices. The disclosure of additional information is found to be at best minimal. It is concluded that councils' current reporting practices are not sufficient to ensure the adequate discharging of their accountability responsibilities.

Examination of the economic and political factors' explanatory power suggests that councils with larger populations more adequately discharge their financial reporting responsibilities than councils with smaller populations. This maybe attributable to the council being 'separated' from the residents and ratepayers, which leads to the formation of interest groups within the municipality .

Given the exploratory nature of this research, several areas have been identified which may warrant further research to provide a better understanding of local government financial reporting. In particular, more specific research is suggested to investigate the variation in reporting noted between small and large councils. Other matters identified that may be worthy of further investigation include: the auditor's role in ensuring adequate financial disclosure by councils, the use of newspapers as a possible alternate information source, why councils appear not to report non-financial performance measures and the motivation for early adoption of public sector accounting standards which have multi-year adoption periods.

DECLARATION

"I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher of education; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except were due reference is made in the text."

Signature..

Date.....22/11/93.....

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Last but not least, I wish to thank my wife Jacqui and my family, who have given much and gone without much, yet have stood by me throughout my studies. Without their unwavering support this thesis would not have been possible.

TABLE OF CONTENTS

| | |
|---|-----------|
| ABSTRACT | ii |
| DECLARATION | iv |
| ACKNOWLEDGMENTS | v |
| LIST OF TABLES | ix |
| CHAPTER 1 INTRODUCTION | 1 |
| CHAPTER 2 RELATED RESEARCH | 6 |
| Surveys of Published Accounts | 6 |
| Economic and Political Factors | 8 |
| CHAPTER 3 THEORETICAL FRAMEWORK AND HYPOTHESES | 11 |
| Auditor Influence | 11 |
| Agenda Setting by Newspapers | 14 |
| Level of Debt | 15 |
| Interest Groups | 16 |
| Electorate Participation in Council Elections | 18 |
| CHAPTER 4 RESEARCH DESIGN | 20 |
| Dependent Variable Disclosure Indexes | 21 |
| Compulsory Disclosure Items | 21 |
| Voluntary Disclosure Items | 22 |
| Distribution of the Financial Reports | 26 |
| Scoring the Disclosure Indexes | 29 |

| | |
|--|--------|
| Sample Selection - Dependent Variables | 30 |
| Data Collection - Dependent Variables | 33 |
| Financial Reports | 33 |
| The Questionnaire | 34 |
| Data Collection - Independent Variables | 34 |
| Auditor Firm Size | 34 |
| Newspapers | 36 |
| Level of Debt | 37 |
| Interest Groups | 38 |
| Electorate Participation in Council Elections | 39 |
| Statistical Analysis Techniques | 40 |
| Univariate (Descriptive) Statistical Tests | 40 |
| Bivariate (Relationship) Statistical Tests | 41 |
| Multicollinearity | 41 |
| Multivariate Statistical Tests | 42 |
| CHAPTER 5 RESULTS | 44 |
| Survey of Disclosure in Councils' Annual Financial Reports | 44 |
| Compliance with Compulsory Reporting Requirements | 45 |
| Voluntary Reporting Practices | 47 |
| The Dissemination of Annual Financial Statements | 50 |
| Analysis of the Economic and Political Factors Explanatory | |
| Power | 52 |
| Outliers | 53 |
| Descriptive Statistics - Dependent and Independent | |
| Variables | 55 |
| Examination of the Relationship Between the | |
| Economic Factors and the Dependent Variables | 58 |
| Examination of the Linear Regression Models | 63 |

| | |
|---|-----|
| CHAPTER 6 DISCUSSION | 78 |
| Limitations | 79 |
| Further Research | 81 |
| REFERENCES | 85 |
| APPENDIX 1 LOCAL GOVERNMENT ACCOUNTING DIRECTIONS 1985 - FINANCIAL STATEMENT SCHEDULES | 98 |
| APPENDIX 2 QUESTIONNAIRE | 99 |
| APPENDIX 3 CORRESPONDENCE - FINANCIAL REPORT COLLECTION | 104 |
| APPENDIX 4 DEFAULT CLERK'S DECLARATION | 107 |
| APPENDIX 5 STATISTICAL ANALYSIS - ADDITIONAL TABLES | 108 |

LIST OF TABLES

| | |
|---|-----------|
| Table 1 | |
| Summary of council's financial accountability responsibilities | 3 |
| Table 2 | |
| Disclosure index - compulsory reporting component | 23 |
| Table 3 | |
| Disclosure index - voluntary reporting component | 25 |
| Table 4 | |
| Description of the dependent and independent variables | 31 |
| Table 5 | |
| Distribution of local government municipalities in Western Australia | 32 |
| Table 6 | |
| Distribution of the sample of local government municipalities in Western Australia | 33 |
| Table 7 | |
| Summary response rates for the dependent and independent variables | 35 |
| Table 8 | |
| Pearson Product Moment Correlation coefficients - independent variables | 42 |

| | |
|--|-----------|
| Table 9 | |
| Summary disclosure index scores - all respondents | 45 |
| Table 10 | |
| Descriptive statistics - dependent variables - sample | 54 |
| Table 11 | |
| Descriptive statistiscs - independent variable | 55 |
| Table 12 | |
| Pearson Producat Moment Correlation coefficients - 1991 and 1992 variables | 57 |
| Table 13 | |
| Pearson Product Moment Correlation coefficients with outliers removed - 1992 variables | 58 |
| Table 14 | |
| Mann-Whitney U - Wilcoxon Rank Sum W Test 1991 dependent variables by AUDSIZE | 59 |
| Table 15 | |
| Pearson Product Moment Correlation coefficient for metropolitan/ non-metropolitan councils by independent variable VOTE92 | 62 |
| Table 16 | |
| 1991 linear regression model with POP variable | 64 |

| | |
|---|------------|
| Table 17 | |
| 1991 linear regression model with POP variable - continued | 65 |
| Table 18 | |
| 1992 linear regression model with POP variable - outliers removed | 66 |
| Table 19 | |
| 1992 linear regression model with POP variable - outliers removed - continued | 67 |
| Table 20 | |
| Compulsory disclosure items - 1991 financial statements - all respondents | 109 |
| Table 21 | |
| Compulsory disclosure items - 1992 financial statements - all respondents | 110 |
| Table 22 | |
| Voluntarily reporting practices - 1991 and 1992 financial statements - all respondents | 111 |
| Table 23 | |
| Dissemination of 1991 and 1992 annual financial reports - all respondents | 112 |
| Table 24 | |
| 1992 linear regression model with POP variable | 113 |

| | |
|--|-----|
| Table 25 | |
| 1992 linear regression model with POP variable - continued | 114 |
| Table 26 | |
| 1991 linear regression model with RATES91 variable | 115 |
| Table 27 | |
| 1991 linear regression model with RATES91 variable - continued | 116 |
| Table 28 | |
| 1992 linear regression model with RATES92 variable - outliers removed | 117 |
| Table 29 | |
| 1992 linear regression model with RATES92 variable - outliers removed - continued | 118 |
| Table 30 | |
| 1992 linear regression model with RATES92 variable | 119 |
| Table 31 | |
| 1992 linear regression model with RATES92 variable -continue | 120 |

CHAPTER 1 INTRODUCTION

This thesis examines a measure of the extent and nature of financial reporting by local governments against the requirements and recommendations specified in the relevant legislation, regulations and accounting standards.¹ It also attempts to identify some economic and political factors which may explain the level of disclosure adopted by Western Australian local government councils.² The intention of this thesis is twofold: to provide information which will increase the understanding of current local government accounting practice and to enhance the development of accounting regulation and standards related to local government financial reporting. Ingram (1984) and Ingram and Copeland (1981) argue the need for information that may illuminate governmental accounting practice:

Given the current focus on governmental accounting standards and the quality of governmental accounting practices, information that may illuminate accounting practice choice criteria is potentially useful for assessing the relative costs and benefits of reporting rules. (Ingram, 1984, p. 127).

¹ Local Government Act 1960-1982 as amended.
Local Government Accounting Directions 1985.
Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" (effective post 1 January 1994) (Australian Accounting Research Foundation Public Sectors Accounting Standards Board [AARF], 1991).

² The Local Government Act 1960-1982 (§ 9)(5)(a)) defines a council as "the executive body of a municipality" and a municipality as "a body corporate having perpetual succession, a common seal and the powers conferred and the obligations imposed upon a municipality by law (§ 9(2)) and a municipality is a city (§ 9(40(a))), a town (§ 9(40(b))) or a shire (§ 9(4)(c)). Furthermore, "the inhabitants for the time being of a municipal district constitute a municipality" (§ 9(1)).

The role of financial reporting is the communication of financial information from an economic entity to the stakeholders of the entity. Communication of financial information to the stakeholders of an economic entity is considered by Gray, Owen & Maunders (1987, p. 43) as:

An implicit responsibility incumbent upon every economic entity regarded as significant in terms of the scale of its command over human and material resources being such that the results of its activities have significant economic implications for the community as a whole.

The Statement of Accounting Concepts SAC 2 "Objective of General Purpose Financial Reporting" (Australian Accounting Research Foundation Public Sector Accounting Standards Board [AARF] & Accounting Standards Review Board [ASRB], 1990, para. 11) defines general purpose financial reporting as "a means of communicating relevant and reliable information about a reporting entity to users."

Western Australian local government councils, as the executive body of municipalities which are significant economic entities,³ have a responsibility to their stakeholders to account for the financial and economic responsibilities entrusted to them. As with other executive bodies of economic entities, councils in Western Australia use general purpose financial reports to discharge their accountability responsibilities.

³ Western Australian local government revenues and grants (taxes, fees from regulatory services, fines, gifts and other minor transfers, interest on fixed deposits and bank accounts and grants received) in 1990-91 was \$625.658 million. Western Australian local government expenditure during the same period was \$581.937 million, of which \$232.135 million was capital expenditure and \$349.802 million was current expenditure of a non-capital nature. (Australian Bureau of Statistics, 1992).

Table 1

Summary of council's financial accountability responsibilities

Local Government Act 1960-1982:

- S. 626(2) Required to maintain books of accounts which are open to inspection by ratepayers, creditors and councillors.
- S. 630(1) An annual statement or summary showing the financial position of the municipality as directed by the Minister.
- S. 630(2) Statement of borrowings and application of borrowings.
- S. 630(2a) Copies of statements to be available seven days prior to annual general meeting of electors.
- S. 630(5) Council is allowed to prepare additional statements if it sees it as desirable or necessary.
- S. 631(1) Accounts and statements are to be audited and the auditor's report to be submitted to the Minister and council.

Local Government Accounting Directions 1985:

- Reg. 2(a) Annual statements to prepared in accordance with schedules 1 to 24 and 25 (see Appendix 1).
- Reg. 51(1) Annual financial statements as at 30 June last preceding to be prepared by 9 September in each year.
- Reg. 52(3) Place advertisement in a newspaper circulating throughout the district advising of the availability of the financial statements and auditor's report for inspection at the council's offices. The advertisement is

to include a verbatim copy of the auditor's report.

AAS 27 Financial Reporting by Local Governments:

- Para. 22 A statement of funds flows.
- Para 25. Operating statement prepared in accordance with Australian Accounting Standard "AAS 1 Profit and Loss."
- Para. 28 Note disclosing how budgets were established, and the extent to which rates were deployed for the purposes they were raised is recommended.
- Para. 29 Statement of financial position (balance sheet).
- Para. 31 Statement of changes in equity disclosing a reconciliation of the opening and closing balances of each class of equity.
- Para. 67 Disclosure of revenues and expenses reliably attributable to each broad function or activity of the local government.
- Para. 73 Report on any possible effects of non-compliance with any externally imposed requirements relevant to the municipalities performance, financial position or financing and investing.
- Para. 79 Recommended that performance indicators be included.
- Para 80 Financial reports be prepared at least annually and be made readily available to users on a timely basis. Local government community to be informed of availability.

The mere provision of financial information as a general purpose financial report however does not necessarily constitute the discharging of an organisation's accountability responsibilities. In working towards a public sector financial reporting conceptual framework, Jones & Pendlebury (1991), Lapsley (1992), Mayston (1992), Taylor (1989), and the Statement of Accounting Concepts SAC 2 "Objective of General Purpose Financial Reporting" (AARF & ASRB, 1990) see the ideal, as the provision of financial information that meets users' needs while acting as a mechanism to discharge the organisation's accountability responsibilities. Similarly, the Victorian government's committee investigating municipal accounting concluded that the objective and priority of municipal reporting "should be to satisfy accountability requirements in terms of presenting accurate statements of financial position to ratepayers and others interested in the overall financial position and performance of a Local Government authority" (Municipal Accounting and Audit Practices Review Committee, 1990, p. 68).

Within Western Australia the guidelines for the discharging of a council's accountability responsibilities (see Table 1) are laid down in state legislation (Local Government Act 1960-1982, 1982), local government accounting regulations (Local Government Accounting Directions 1985, 1985) and the accounting professions' accounting standard, Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" (Australian Accounting Research Foundation Public Sector Accounting Standards Board [AARF], 1991). The standard becomes effective as of the first financial reporting period ending on or after 1 January 1994.⁴

⁴ The initial date from which the standard was to become effective (1 July 1993) was extended to 1 January 1994 by the Australian Accounting Research Foundation Public Sector Accounting Standards Board on the 24 August 1993 (AARF, 1993).

Prior compliance with the standard, while not mandatory, has been urged by the Australian Society of Certified Practising Accountants and the Institute of Chartered Accountants in Australia (AARF, 1991, para. 7).

It is found in this study that Western Australian local government councils in the main comply with the mandatory reporting requirements. However, despite the recommendations by the professional bodies, they do not in any substantial manner extend these requirements by voluntarily disclosing additional information or voluntarily complying with Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments." Furthermore, only the economic variable, population is found to be statistically significant, suggesting that councils with larger populations tend to discharge their accountability responsibilities more effectively than councils with smaller populations.

The remainder of this thesis is organised as follows. Related research studies conducted in the United Kingdom and the United States are discussed in Chapter 2. Chapter 3 follows with a discussion of the economic factors considered as possible explanations for the reporting practices adopted by Western Australian local government councils and the hypotheses investigated in this study. Chapters 4 and 5 outline the methodology used in this study and discusses the descriptive and empirical findings. Chapter 6 concludes the thesis with a discussion of the implications that result from these findings, the limitations of the study and suggested future research.

CHAPTER 2 RELATED RESEARCH

The literature concerned with financial reporting by governments has primarily reported on or examined state and local government reporting practices in the United Kingdom and the United States. This literature has generally been in one of two forms: either surveys of published accounts or the examination of possible economic and political factors that may explain state and local government reporting practices.

Surveys of Published Accounts

Jones and Pendlebury (1982, 1991) suggest in their survey of published accounts of municipalities in England that the published accounts do not, in substantial respects, conform with existing English professional and statutory requirements. Chandler and Cook (1986, p. 87) in a similar survey of English and Welsh municipalities' level of compliance with compulsory and voluntary reporting requirements conclude "that the level of compliance with compulsory accounting standards (guidance notes on SSAPs), a matter subject to auditors' scrutiny, was apparently no greater than the level of compliance with the voluntary Code of Practice on comparative statistics."

Within the United States, Haseman and Strauss (1981) in a survey of 168 local governments found an emphasis on the provision of short-term information as opposed to long-term information such as investments and

debt levels. They suggest that this bias in reporting may not lead to effective decision making by users.⁵

Greenall, Paul and Sutcliffe (1988) report on a review of 21 Australian financial reports from 1986 and 1987. They concluded that the "general features of the financial statements of local governments do reflect applicable reporting requirements" (Greenall et al., 1988, p. 107). Gynther (1982, p. 20), however, in an examination of annual financial statements from a range of Queensland local government authorities concluded that "these financial statements were not really designed for the consumption of ratepayers and lenders; they had merely been compiled to meet the bare requirements of the Local Government Act and its Regulations."

The British literature has highlighted a tendency for local government councils in the United Kingdom to fall short in their compliance with mandatory reporting requirements. The Australian literature while not reporting on studies of a substantial nature, has not found any evidence of a similar significant failure by local governments to comply with mandatory reporting requirements.

The literature does suggest that while there is reasonable compliance with the compulsory reporting requirements, financial reporting by councils falls short of providing information in a useable format and in a way that satisfactorily discharges their accountability responsibilities.

⁵ Users have been identified in the literature (Chandler, Cook & Pearson, 1985, Drebin, Chan & Ferguson, 1981, Mayston, 1992) as constituting the members of the following broad groups: external and internal users. External users include voters, tax-payers, fee-payers, interest groups, policy makers, government ministers, public service, members of state and federal parliaments and the press. Internal users include elected governing council, local government employees and creditors of the municipality.

Economic and Political Factors

The literature reviewed above provides some indication of the state of local government financial reporting. It has, however, been primarily of a descriptive nature and does not consider any economic or political factors that may provide some explanation for the variations in the content of local government general purpose financial reports.

Taking a different approach from the British literature, Evans and Patton (1983), Ingram (1984) and Robbins, Apostolou and Strawser (1986) consider some economic and political factors which may explain the reporting practices adopted by state and local governments in the United States.

Evans and Patton (1983) in their study, investigate why certain municipal officials voluntarily provide external financial reports that not only meet the disclosure requirements of Generally Accepted Accounting Principles (GAAP) but also include sufficient additional disclosure to earn a Certificate of Conformance from the Municipal Finance Officers Association.⁶ In their study, Evans and Patton develop a conceptual model to explain the municipal officials' behaviour. From this model, they identify several independent variables that partially explain municipal officials' behaviour: debt levels, state effects (different reporting requirements imposed by various states), prior participation in the program, professional activity of municipal official, form of government administration (either run by a manager or not run by a manger), and population. The authors found all

⁶ The Municipal Finance Officers Association, is an American organisation of municipal officials which administers the voluntary Certificate of Conformance Program (CCP). The Certificate of Conformance Program awards certificates of achievement to state and local governments whose comprehensive annual financial reports meet the required standards.

variables are statistically significant at accepted levels, except for the following: debt residual and the professional activity of the municipal officer.

Ingram (1984) investigates whether a relationship exists between accounting practices of state governments in the United States and selected economic/political variables. The dependent variable is an index of disclosure quantity and the independent variables examined are: political competition index (percentage of the vote for the winning party in latest gubernatorial election), urbanisation index (percentage of population), per capita income, median school years (level of education), appointive power index (scale for number of major administrators appointed by governor), selection of accounting system administrator (elected, appointed by legislature or appointed by governor), selection of the auditor (elected or appointed by legislature), newspaper circulation per capita, long-term debt per capita, inter-governmental revenue/total revenue, own revenue per capita, salaries of governor, legislators and accounting administrator, auditor-CPA code (either CPA or not CPA), and population.

Ingram (1984) found the following factors' correlations are statistically significant at the alpha level, $\alpha \leq .05$: urbanisation, per capita income, appointive powers, selection of the auditor, own revenue per capita, governors' salaries, and accounting administrator salaries. Selection of an accounting administrator, was statistically significant at the alpha level, $\alpha \leq .10$. Newspaper circulation exhibits a weak relationship, which Ingram (1984) suggests may be because newspaper circulation is a poor surrogate for the strength of the press.

Robbins, Apostolou and Strawser (1986) investigate the relationship between the extent of pension disclosure in municipal annual reports of United States cities and three municipal variables. The independent variables tested are: city size, size of the audit firm (big eight or regional) and whether the city held the Certificate of Conformance. The dependent variable tested is: the disclosure of financial information related to employee pension plans by the cities. The authors found both the size of the audit firm and whether the city holds a Certificate of Conformance to be significant influences at the alpha level, $\alpha \leq .10$.

Earlier research suggests that despite various mandatory and voluntary reporting requirements, the quality and quantity of accounting information provided by municipalities varies and that there are economic and political factors that may provide some explanation for this variance. Chapter 3 discusses further several economic and political factors that may provide some explanation for the reporting practices of local government councils in Western Australia.

CHAPTER 3 THEORETICAL FRAMEWORK AND HYPOTHESES

Research by Evans and Patton (1983), Ingram (1984) and Robbins, Apostolou and Strawser (1986), reviewed in Chapter 2, identify several significant economic and political factors that may influence the extent and nature of financial reporting disclosure by governments. The economic and political factors discussed in this chapter have been identified from these significant studies and other literature. It is argued that these factors may provide some explanation for the variation in annual financial reporting practices adopted by local government councils in Western Australia.

Auditor Influence

As a requirement of the Local Government Act 1960-1982, Western Australian local government councils' financial accounts must be audited by a registered local government auditor.⁷

It is suggested that local government auditors have the potential to influence the accounting disclosure policy of councils. Audit quality and auditor independence are two variables that may reflect the extent of an auditor's influence.

⁷ To be registered as a local government auditor, an auditor must meet the requirements laid down in the Local Government Auditors Regulations 1982, which stipulates that a local government auditor must either hold a current practising certificate of The Institute of Chartered Accountants in Australia or have the membership status of a Principal in Public Practice of the Australian Society of Certified Practising Accountants (Regulation 13(a)(i) & (ii)) and is a registered company auditor (regulation 13(1)(b)) (Local Government Auditors Regulations 1982, 1982).

Audit quality is defined by DeAngelo (1981a, p.186) as "the market-assessed joint probability that a given auditor will *both* (a) discover a breach in the client's accounting system, and (b) report the breach." However, councils may not have the ability to assess the quality of the audit provided by their existing auditor or a potential auditor.⁸ Even where they can assess audit quality it may be considered too costly to do so. Where organisations are not able to assess, or lack the ability to assess audit quality, DeAngelo (1981a) argues that auditor firm size is a suitable surrogate for audit quality with larger firms providing a higher level of audit quality.⁹ Furthermore, DeAngelo (1981a, p. 187) argues that consumers use size as a surrogate "because larger auditors have reduced incentives to lower audit quality opportunistically."

Several studies have found evidence in support of size as a surrogate for audit quality. In Australia, Francis (1984, p. 147) found that "companies voluntarily contract for higher priced audits from large accounting firms because it is perceived that higher quality audits will be purchased." Knapp (1991) in a survey of American audit committee members, concluded that the audit committee's perception of audit quality is significantly influenced by audit firm size. Deis and Giroux (1992) in a study of the determinants of public sector audit quality also found that audit firm size was a significant factor. Teoh and Wong (1993) examine the relationship between the

⁸ The Local Government Act 1960-1982 (§ 635E(2)) requires councils to be audited by a registered local government auditor who is appointed by the council. Where the council cannot obtain the services of a local government auditor on "reasonable terms and conditions" (§ 636(1)(a)) or by an order of the Minister (§ 636(1)(a)), the Auditor General or a person appointed by the Auditor General will carry out the functions of auditor for the municipality (§ 636(2)).

⁹ Larger firms in the context of this thesis are defined as the "Big Six", which are Arthur Anderson, Coopers and Lybrand, Ernst and Young, Deloitte Ross Tohmatsu, KPMG Peat Marwick and Price Waterhouse (McKeon, 1991 & 1992).

earning response coefficient and the size of the audit firm as a measure of audit quality. They conclude that audit firm size is a measure of audit quality as evidenced by a statistically higher earnings response coefficient for big eight clients. The U.S. Government Accounting Office (1986, p. 21) in a review of the quality of Certified Public Accountants (CPA) audits of government departments found that "smaller CPA firms had a greater likelihood than larger CPA firms of performing audits that did not satisfactorily comply with standards."

The second aspect that may affect the level of influence able to be exerted by an audit firm is the perceived independence of the auditor. DeAngelo (1981b, p. 116) defines auditor independence "as the conditional probability that, given a breach has been discovered, the auditor will report the breach."

DeAngelo (1981b) argues that an auditor, whether small or large, earns client-specific quasi-rents in a given period.¹⁰ If no client-specific quasi-rents are expected from a local government council then the auditor will be indifferent to the possible cancelling of the audit contract and therefore has no economic incentive to discourage reporting of any breach. In contrast a firm that has a greater client-specific quasi-rent stream is more likely not to report a breach.

It is argued by DeAngelo (1981b) that larger firms as opposed to smaller firms can dilute their client-specific quasi-rents and therefore have fewer economic incentives not to report a breach as opposed to a smaller or local audit firm. This view is supported by Shockley (1981) in a study of

10 "A given period's client-specific quasi-rent equals the excess of revenues over *avoidable* costs, including the opportunity cost of auditing the next-best alternative client" (DeAngelo, 1981b, p. 116).

American audit report users' perceptions which found that audit size was a significant factor in influencing the user's perception of audit independence. Gul (1989) in a study of New Zealand bank lending officers found that audit size was a significant factor in influencing the lending officers' perceptions of audit independence. In a recent study of the detection of management earnings forecast errors, Davidson and Neu (1993, p. 479) concluded that larger audit firms "provide higher quality audits than do small auditing firms."

The literature suggests a relationship between audit quality, auditor independence and audit firm size. It is posited that Western Australian local government councils which are audited by large audit firms (big six) are more likely to be susceptible to influence from the auditor than those councils who are audited by smaller audit firm.

H₀¹ The variation in the annual financial reporting by Western Australian local government councils is not related to the size (big six or non-big six) of the audit firm engaged as the council's auditor.

Agenda Setting by Newspapers

Walmsley (1989) suggests that the 'agenda setting' approach (McCombs and Shaw, 1972), or more broadly speaking, the exercising of a social control function (Tichenor, Donohue & Owen, 1980), where the media influences the selection of issues for public consideration through their reporting, has relevance to the development of a regional consciousness.

Within the context of this study, this agenda setting approach would suggest strong levels of influence can be applied by the local or community newspaper to encourage councils to alter the extent of their financial reporting. This view is supported by Zimmerman (1978, p. 117) who argues that the press is involved in the agency relationship between voters and councillors and therefore "affects the contents of municipal financial statements."

It would be expected that a more influential newspaper or a newspaper perceived to be more influential by the council could bring about more disclosure in the annual financial statements than would otherwise be disclosed.

H₀² The variation in the annual financial reporting by Western Australian local government councils is not related to the council's perception of the ability of the local or community newspaper to set an agenda of issues for public debate.

Level of Debt

Financing of local government in America includes the issuing of general obligation and revenue bonds, with the cost of this type of finance considered very important to local government. It is suggested by Evans and Patton (1983) and Ingram (1984) that compliance with General Accepted Accounting Principles (GAAP) may affect the interest costs incurred by government. Similarly, Capeci (1991, p. 41) argues that the bond or credit market has a role in imposing "some discipline on the financial behaviour of local governments." Standards and Poor (cited in Benson, Marks &

Raman, 1991) advised in 1980 that non-compliance with General Accepted Accounting Principles would be a negative factor in the bond-rating process. Studies by Benson et al. (1991) and Giroux & Deis (1993) support the views expressed by Evans & Patton (1983) and Ingram (1984).

West Australian municipalities have the power to borrow funds through overdraft facilities and the issuing of debentures.¹¹ It may be perceived that similar incentives exist in Western Australia for councils to comply voluntarily with accounting standards or to disclose more financial information if such compliance or disclosure were perceived to impact favourably on debt costs.¹² It is expected that councils with high levels of debt will have high levels of voluntary disclosure.

H₀³ The variation in the annual financial reporting by Western Australian local government councils is not related to the level of debt incurred by the municipality.

Interest Groups

Interest groups have the potential to influence council practices through their ability to bring issues to the public's attention. Interest groups, are therefore expected to demand more information than an individual voter

11 Local Government Act 1960-1982 (§ 601 & § 604). Reported sources of finance include State Government Insurance Office (SGIO), Western Australia Treasury Corporation, building societies and trading banks.

12 Pursuant to the Local Government Act 1960-1982 as amended, councils have the power to set rate collections at a sufficient level to recover the costs of servicing any loans (§ 614(1)). In addition, should a council default in its loan repayments, the creditor(s) may seek the approval of the Supreme Court to appoint a receiver to the council to manage its revenues (§ 618).

given their ability to reduce the costs of assimilating that information (Ingram, 1984). Similarly, interest groups would expect their demands for more information to be met given their ability too more likely set an agenda of issues for public debate than an individual.

Dye (1969, p. 77) suggests that a tendency for coalition forming is "particularly strong in a society of great size and complexity" and that as societies become more urban and industrial there is a tendency to move away from individual politics to group politics. Similarly, Ziegler and Van Dalen (1976, p. 94) noted that states that are wealthy, urban and industrial "exhibit a strong and active group life."

Ingram (1984) identifies urbanisation, per capita income, level of education,¹³ and percentage of the vote for the winning party as suitable surrogates for coalitions of voters.¹⁴

In the context of Western Australian local government, it is suggested that councils with larger populations are inherently more remote from their municipality than smaller councils. Such remoteness impacts in two ways: (a) to dilute the effectiveness of an individual's vote, and (b) to devalue the communication process between the individual and the council. To facilitate more effective communication with the council and to enhance the

13 Level of education as a measure of interest groups is not further considered in this thesis due to an inability to obtain relevant data from the Australian Bureaus of Statistics within the time frame of this study.

14 Given that the major political parties (Australian Democrats, Australian Labour Party, Australian Liberal Party) tend not to openly contest local government elections the percentage of the vote for the winning party is not considered an appropriate measure for Western Australia. However, participation in local government elections is considered a possible influencing political factor and is discussed in the following section.

individual's vote, a single resident in a large municipality is more likely to combine with others to form an interest group.

Similarly in the situation where the general rates income of the council is high it is expected that residents will form interest groups (for example, resident/ratepayer groups) to add authority to their communications with the council.

It is posited that the voting power that may reside with such interest groups may influence councils to increase the disclosure in their annual financial reports.

H_0^4 The variation in the annual financial reporting by Western Australian local government councils is not related to the portion of the state's population that constitutes the municipality's population.

H_0^5 The variation in the annual financial reporting by Western Australian local government councils is not related to the level of rates income per capita within the municipality.

Electorate Participation in Council Elections

Municipalities are controlled by an elected body of councillors, with council elections occurring on the first Saturday of May each year. While council elections may not be considered 'party political', councils are political institutions and therefore "given sufficient political competition, elected officials should be responsive to voter preferences. Politicians [councillors] will at-

tempt to satisfy voter demands, assuming that their primary objective is reelection [sic] and political competition is high" (Giroux, 1989, p. 200)

Western Australian local government elections are voluntary and therefore participation by voters in the elections can vary considerably from one municipality to another. It is posited that councils subject to a high level of voter participation in council elections will be more sensitive to their obligation to be accountable.¹⁵ Because of this increased awareness of their obligations they will disclose more in their annual financial reports than otherwise would have occurred.

H₀⁶ The variation in the annual financial reporting by Western Australian local government councils is not related to the level of voter participation in local government elections.

Within this chapter several economic and political factors have been identified from the literature which may influence the extent and nature of financial disclosure by local government councils in Western Australia. The remaining chapters of this thesis discusses the research design, reports on the results of the research and concludes with a discussion and summary of this study.

¹⁵ Voter participation in local government elections may be influenced by political issues which are non-financial in nature, for example, concerns over land development. It is not possible nor practical within the scope of this study to control for the impact of non-financial issues on voter participation.

CHAPTER 4 RESEARCH DESIGN

The literature reviewed in Chapter 2 can be divided into two types: Surveys or studies of a more descriptive nature and studies that investigate the potential influence of economic and political factors upon the extent and nature of local or state government financial reporting. Chapter 3 identifies several economic and political factors from the literature which may influence the extent or nature of financial reporting by local government councils in Western Australia.

Encapsulated in the research design of this thesis, are the two approaches to research used in this area. The first objective is to provide descriptive information about the disclosure policies of Western Australian local government councils. The second objective is the identification of economic and political factors that may provide some explanation for those disclosure policies implemented by Western Australian councils.

To gather the descriptive information pertaining to the disclosure practices of Western Australian local government councils, all councils were approached to assist in this study. For the examination of the identified economic and political factors that may help explain councils reporting practice, a stratified random sample of 59 councils is established. The remainder of this chapter discusses the construction of the disclosure indexes and the sample, the collection of the data, and the statistical techniques applied.

Dependent Variable Disclosure Indexes

Disclosure indexes are used in this study to measure compliance with the regulations, the level of voluntarily disclosure and the councils' policy of disseminating annual financial information to the municipality.

Disclosure indexes can take one of two forms - weighted or non-weighted. A review of the literature would suggest that where the researcher has identified a particular group of financial statement users or wishes to capture both the extent of disclosure and the importance of the financial information, a weighted disclosure index is preferred.¹⁶ A simple non-weighted index is used in this study,¹⁷ as this study attempts to provide a measure of Western Australian local government councils' annual financial reporting practices, as opposed to determining the importance of information disclosed. Robbins and Austin (1986) found that as measures of disclosure quality in governmental financial reports, either method is appropriate.

Compulsory Disclosure Items

Western Australian local government councils are required to comply with state legislation (Local Government Act 1960-1982, 1982) and local government accounting regulations (Local Government Accounting Directions 1985, 1985) in preparing their annual financial reports. The Local

¹⁶ See Buzby (1974, 1975), Firth (1979, 1980), Singhvi & Desai (1971). For a review of the use of disclosure indexes in the literature, see Marston and Shrivs (1991).

¹⁷ Non-weighted disclosure indexes have been used by Cooke (1989, 1993), Giroux (1989), Ingram (1984, 1987), Robbins, Apostolou and Strawser (1986), and Wallace (1988).

Government Accounting Directions 1985 specify that the annual financial statements are to be prepared according to Schedules 1 to 24, and 25 (regulation 51(2)). In addition, schedules 4 to 15 are required to include a summary in the form of Schedule 26. Regulation 51(6) requires the shire or town clerk to append to the statements, a signed declaration indicating compliance with the Act and regulations.

Schedule 27 Base Grant Matching Expenditure, while not specified in the regulations as a required schedule, has been included in this part of the disclosure index as, (a) it is included in the sample schedules provided in the Local Government Accounting Directions 1985 and (b) it is included in 77 (86%) of the 1991 financial statements and 20 (21%) of the 1992 financial statements surveyed.

Western Australian local government councils' financial statements were examined for the presence of each of the above schedules, the additional summary schedule and the clerk's declaration of compliance.

The compulsory reporting component of the disclosure index and the scores are summarised in Table 2.

Voluntary Disclosure Items

In addition, to the compulsory disclosure requirements, the Local Government Act 1960-1982 (§ 630(5)) allows councils to provide additional information that is considered necessary or desirable.

Table 2

Disclosure index - compulsory reporting component

| Local Government Accounting Directions 1985 | Possible Score |
|---|-----------------------|
| <ul style="list-style-type: none">• Schedules 1 to 25 (see Appendix 1). (Schedules 4 - 14 consist of two parts - program summary and program detail). | 36 |
| <ul style="list-style-type: none">• Appended and signed Clerk's Declaration in accordance with the regulations. | 1 |
| <ul style="list-style-type: none">• Schedule 27 Main Roads Department Matching Expenditure | 1 |
| Score - (Compulsory Requirements) | 38 |

The following items have been identified from the professional standards, private sector reporting practices and the literature to be either necessary or desirable items to be included in local government financial statements.

The Australian professional accounting bodies urge compliance by councils with the reporting requirements in Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" (AARF, 1991, para. 7). The financial statements were examined to determine the extent of disclosure in accordance with Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments."

The second item included in the disclosure index, is the appending of the auditor's report to the financial statements. Including the auditor's report in financial reports is a mandatory reporting practice in the private sector. This does not however appear to be the situation with financial reporting by

Western Australian local government councils. While the Local Government Accounting Regulations 1985 specifically require the clerk's declaration to be appended to the financial statements (regulation 51(6)), the regulations are not as specific with regards to the auditor's report. Regulation 52(3) requires the council to advertise that the annual financial statements and auditor's report are available for inspection, which suggests that the auditor's report maybe a separate document to that of the financial statements.

Importance is placed on the auditor's report, as evidenced by its mandatory inclusion in financial statements issued in the private sector. It is suggested, that a similar level of importance could be placed on the auditor's reports pertaining to Western Australian local government councils' annual financial statements. The financial statements were examined for the presence of the auditor's report and the auditor's management report.

Explanatory notes to the accounts are also considered important in private sector financial reporting. Additionally, Australian Accounting Standard AAS 6 "Accounting Policies: Determination, Application and Disclosure" (AARF, 1986a) requires a note to the accounts disclosing the basis of accounting used in the preparation and presentation of the financial reports. It is expected that Western Australian local government councils would adopt similar disclosure practices. The financial statements were examined for the inclusion of (a) notes to the accounts, and (b) a statement of accounting policy.

Table 3

Disclosure index - voluntary reporting component

| AAS 27 Financial Reporting by Local Government | Possible Score |
|---|-----------------------|
| • Operating Statement | 1 |
| • Statement of Financial Position | 1 |
| • Statement of Changes in Equity | 1 |
| • Statement of Activity by Function | 1 |
| • Statement of Sources and Application of Funds | 1 |
| • Note disclosing how budgets established | 1 |
| • Note disclosing how budgets established | 1 |
| • Note disclosing the extent to which rates were deployed | 1 |
| • Provision of non-financial performance indicators | 1 |
| Audit Reports | |
| • Auditor's report | 1 |
| • Auditor's management report | 1 |
| Other Information | |
| • Basis of accounting | 1 |
| • Notes to the accounts | 1 |
| • Explanation of the schedules | 1 |
| • Graphic - Overview of income and expenditure | 1 |
| • Graphic - Fund income and expenditures | 1 |
| Total Possible Score | 16 |

Given the complicated nature of the fund accounting and the compulsory reporting practices specified in the regulations, the use of graphics, which is considered to aid comprehension (Powers, Lashley, Sanchez and Shneiderman, 1984) could be perceived as aiding in the communication of financial information. The financial statements were examined for the provision of a graphical overview of the council's income and expenditure and of a graphical overview of each relevant schedule's income and expenditure.

The voluntary reporting component of the disclosure index and associated scores are summarised in Table 3.

Distribution of the Financial Reports

The third disclosure index measures the council's policy of disseminating annual financial information to the municipality.

The Local Government Accounting Regulations 1985 (regulation 52(3)) and the Local Government Act 1960-1982 (§ 630(2a)) require councils to (a) advertise in a newspaper circulating throughout the district that the financial statements and auditor's report are available for inspection at the council's office, and (b) to make available copies of the financial statements seven days before the annual general meeting of electors and for a reasonable time afterwards on demand from ratepayers and creditors.

To determine councils' practice of disseminating their financial reports, a questionnaire was developed (see Appendix 2) and mailed to all 138 mainland councils' executive officers with a covering letter requesting the com-

pletion of the survey. The initial mailing was followed up by telephone six weeks later and replacement questionnaires were mailed when requested. One hundred and seventeen questionnaires were returned, a response rate of 85%. One council declined to participate and two questionnaires were excluded as they were not completed sufficiently to be analysed. This resulted in 115 questionnaires being analysed, a response rate of 83%.

Several additional approaches to disseminating the council's annual financial information were also identified (see Appendix 2). The additional approaches identified appear to represent the options used by councils. Only nine (8%) respondents identified any additional method of notifying the municipality of the availability of the financial reports and only three (3%) respondents identified any additional method of disseminating their annual financial information.

Two aspects of the council's policy relating to the disseminating of their annual financial statements were canvassed in the questionnaire. The first aspect (question 2) sought to establish the council's method of informing the municipality of the availability of annual financial information. Three alternatives were suggested in the questionnaire, and in addition respondents were given the opportunity to identify any other method(s) used. Two of the suggested options are assumed to be mutually exclusive.¹⁸ A score of one is given where a council indicated either or both of the mutually exclusive options is used. For the remaining options, a score of one is given where a council indicated by a 'yes' response that a method is used. All 'no'

¹⁸ The following two methods, (a) notice included with the rates account, and (b) a notice included with announcement of the annual general meeting are assumed to be mutually exclusive.

responses are given a zero score. A maximum score of four is possible for this question.

The second aspect of the questionnaire (question 3) sought to establish the council's policy of disseminating their annual financial information to the municipality. Eleven alternate methods were identified in the questionnaire plus respondents were given the option of specifying any other method(s) used. Six of the alternatives suggested in the questionnaire are assumed to be mutually exclusive.¹⁹ A score of one is given where a council indicated either or both methods of an identified mutually exclusive option group is used.

It is also assumed that councils who indicated that they provide annual financial information with the rate notice and/or notice of the annual general meeting, would also indicate that they distribute the same financial information to all ratepayers. Where councils indicated that they adopt either one or both methods, a score of one is given.

Negative ('no') responses to the sub-questions related to summarised financial information are given a score of one and a positive ('yes') answer, a score of zero. This approach is taken because (a) there are no reporting controls placed on councils concerning summarised financial reports, and

¹⁹ The alternatives assumed to be mutually exclusive are:

- (a) enclosing financial information the with rates notice, or
- (b) enclosing financial information with the notice of annual general meeting;
- (c) distributing financial information directly to all residents, or
- (d) distributing financial information directly to residents on demand;
- (e) distributing financial information to all ratepayers, or
- (f) distributing financial information to ratepayers on demand.

(b) where applicable, the provision of summary information is not in compliance with the regulations.

All remaining alternatives are scored as follows: A score of one is given where a council indicates that a method is used. All 'no' responses are given a score of zero.

A maximum score of 10 is possible for this question. Each council was then given a score out of 14 for the 1990/91 and the 1991/92 reporting periods.

Scoring the Disclosure Indexes

For each reporting period (1991 and 1992) three separate disclosure scores (Compulsory Score, Voluntary Score and Distribution Score) are calculated. Besides these three scores, two additional summary scores are also calculated: Statement Total Score which combines the compulsory and voluntary score and an Overall Total Score which combines the compulsory score, the voluntary score and the distribution score (see Table 4).

Each score has a range of zero to one and is calculated using the following formula:

$$DI = d_1 / d_2$$

Where:

| | | |
|-------|---|--|
| DI | = | disclosure index score for the council |
| d_1 | = | 1 if item d_1 is disclosed |
| | = | 0 if item d_1 is not disclosed |
| d_2 | = | total disclosure score possible. |

When scoring the compulsory component of the financial reports (COMSTAYY), a score of one is given for the presence of a schedule if any of the following conditions are met: The complete schedule is included in the reports, or an explanation is given for the absence of the schedule, or the signed clerk's declaration is amended to exclude the absence schedule.

Similarly, with the clerk's declaration a score of one is only given if the clerk's declaration is both signed and dated as specified in regulation 51(6) of the Local Government Accounting Directions 1985.

Sample Selection - Dependent Variables

Western Australian local government consists of 140 municipalities, of which 138 are within the mainland borders of the state and two are external territories offshore from Western Australia.²⁰

²⁰ Both the Shire of Coco Islands and the Shire of Christmas Island were not constituted as local governments within the jurisdiction of the Western Australian state government until 1 July 1992 and therefore have been excluded from the population for the purposes of this study.

Table 4**Description of the dependent and independent variables**

Dependent Variables:

| | |
|----------|---|
| COMSTAYY | Compulsory disclosure score. |
| VOLSTAYY | Voluntary disclosure score. |
| STATEMY | Total score for statement items (compulsory + voluntary). |
| DISTYY | Measuring availability (distribution) of the financial reports. |
| TOTALYY | Total disclosure score (compulsory + voluntary + distribution). |

Independent Variables and Predicted Signs:

| | | |
|---------|-----|--|
| AUDSIZE | (+) | Size of audit firm. |
| NEWS | (+) | Newspaper circulation as ratio of municipality population. |
| POP | (+) | Municipality population as ratio of state population. |
| DEBTYY | (+) | Level of debt as a ratio of assets for 1991 and 1992. |
| RATESYY | (+) | General purpose rates income for 1991 and 1992. |
| VOTE92 | (+) | Actual voter turnout as ratio of the consolidated roll in the 1992 election. |

Table 5

Distribution of local government municipalities in Western Australia

| METROPOLITAN | COUNTRY |
|-----------------------------|------------------------------|
| Cities.....15 or 11% | Cities.....4 or 3% |
| Towns6 or 4% | Towns3 or 2% |
| Shires.....4 or 3% | Shires106 or 77% |
| Total25 or 18% | Total113 or 82% |

^a Excludes external territories.

Municipalities within Western Australia take the form of cities, towns and shires (for distribution, see Table 5).²¹

To ensure representation of each council by type (shire, town and city) and by its location (metropolitan or non-metropolitan), stratified random sampling was used to establish a sample of 59 councils (for disbursement of the

²¹ The Local Government Act 1960-1982 (§ 6(1)) does not specifically define the requirements for a municipality to be a shire or town, other than to define a town site as "land subdivided or laid out as the site for a town site, township or village."

For a municipality to be declared a city, it must have maintained a population exceeding 20,000 (non-metropolitan) or 30,000 (metropolitan) during each of the last three years preceding declaration (§ 12(2)(a)(i)), maintained a gross revenue from all sources of \$200,000 for each year during the three years preceding declaration (§ 12(2)(a)(ii)) and "is, in the opinion of the Governor clearly distinguishable as a centre of population and contains a distinct and sufficient civic centre with adequate halls and cultural facilities and has sufficient residential, commercial and industrial centres to justify it being so declared a separate city" (§ 12(2)(a)(iii)).

Cities and towns/shires are further distinguished by their executive bodies and chief elected executive officer: executive body of a town or city consists of a mayor and councillors (§ 9(5)(b)(i)) and a shire consists of a president and councillors (§ 9(5)(b)(ii)).

Table 6

Disbursement of the sample local government municipalities in Western Australia

| METROPOLITAN | | COUNTRY | |
|--------------|-----------|--------------|-----------|
| Cities..... | 7 or 12% | Cities..... | 2 or 3% |
| Towns | 2 or 3% | Towns | 1 or 2% |
| Shires | 1 or 2% | Shires | 46 or 77% |
| Total | 11 or 17% | Total | 49 or 82% |

sample, see Table 6). The sample is used in the statistical analysis of the economic and political factors.²²

Data Collection - Dependent Variables

Financial Reports

In conjunction with Edith Cowan University's library, all 138 councils were approached in writing (see Appendix 3) requesting copies of their 1990/91 and 1991/92 financial statements and annual reports. All non-respondents were followed up four weeks later with a second letter (see Appendix 3). Non-respondents to the second letter were again followed up by telephone a further two weeks later. This resulted in a total of 90 (65%) 1991 financial reports and 95 (69%) 1992 financial reports being received, including 44 (77%)

²² Previous research of a similar nature that uses stratified sampling includes Haseman & Strauss (1981), Ingram (1984), Ingram & Copeland (1981), Langsam & Kreuze (1991) and Zimmerman (1978).

1991 financial reports and 46 (78%) 1992 financial reports from those councils in the random sample (see Table 7).

The Questionnaire

Separately, to the request from the university's library for a copy of the financial statements, a questionnaire (see Appendix 1) was mailed to each council. Information sought in the questionnaire concerned (a) how the council informed the municipality that the annual financial statements are available, and (b) how and in what form (summarised or in full) the council disseminated its annual financial information. Non-respondents were followed up by telephone seven weeks after the questionnaire was initially mailed. This resulted a total of 115 (83%) questionnaires being returned, including 56 (95%) questionnaires from those councils in the random sample.

Data Collection - Independent Variables

Auditor Firm Size

Where possible, the audit firm retained by the council was identified from the auditor's report included in the annual financial statements. However, there appears to be no requirement in the Local Government Act or the Local Government Accounting Directions 1985 for councils to include the auditor's report with the financial statements.

Table 7**Summary response rates for the dependent and independent variables**

| Item | Population | | Sample | |
|------------------------------|------------|-------|--------|------|
| | n | % | n | % |
| Dependent Variables | | | | |
| Financial Reports | | | | |
| - 1991 | 90 | 65% | 44 | 75% |
| - 1992 | 95 | 69% | 46 | 78% |
| Questionnaire | 115 | 83% | 56 | 95% |
| Independent Variables | | | | |
| Auditors | N / A | N / A | 42 | 71% |
| Newspapers | N / A | N / A | 47 | 80% |
| Debt - 1991 | N / A | N / A | 44 | 75% |
| Debt - 1992 | N / A | N / A | 46 | 78% |
| Rates - 1991 | N / A | N / A | 44 | 75% |
| Rates - 1992 | N / A | N / A | 46 | 78% |
| Population | N / A | N / A | 59 | 100% |
| Voting | N / A | N / A | 59 | 100% |

To overcome the problem of some councils not including their audit report,²³ respondents to the questionnaire were asked to specify the name of the audit firm retained by the council. In total, it was possible to identify the auditor for 42 (71%) councils in the sample.

²³ Some councils include the auditor's report with their financial statements but remove all identifying information.

Newspapers

Ideally, to measure the level of influence exerted by local or community newspapers, the articles published during the period under study which were related to financial reporting by councils would be counted (Walmsley, 1989). This is, however, not practical within the scope of this study and therefore newspaper circulation (Ingram, 1984) is used here as a surrogate measure of the influence exercised by local or community newspapers.

Due to (a) copyright laws and (b) not all newspapers being audited, it was not possible to obtain the audited circulation figures for all the relevant newspapers, directly from the audit bureaus. Instead the publishers of those newspapers identified as being distributed within the municipalities making up the random sample were approached requesting where possible, the audited circulation figures for their newspapers. For various reasons, some publishers either declined to provide the circulation figures at all or provided unaudited figures or estimates.²⁴

²⁴ The Pearson Product Moment Correlation coefficient estimate was calculated to measure the relationship between NEWS and POP to assess the reliability of the newspaper circulation variable. The estimate was not as strong as expected. This is possibly because the newspaper variable, NEWS, consists of circulation figures for both free and paid papers distributed within Western Australia. In particular, paid newspaper circulation in non-metropolitan areas is smaller in comparison to metropolitan community newspapers. This variation may have distorted the measurement of the relationship between NEWS and POP.

Level of Debt

The variables DEBT91 and DEBT92 were calculated from the asset and debt amounts reported in the 1991 and 1992 financial reports. The equation used is:

$$\text{DEBTYY} = d / a$$

where:

d = reported deferred liabilities

a = reported total assets + current liabilities

In accordance with Schedule 1 (Balance Sheet) of the Local Government Accounting Directions 1985 councils report a total assets amount which has had current liabilities deducted.²⁵ To calculate, the actual total reported assets value, current liabilities were added back to the reported total assets figure.

The reported total assets figure used in the above equation does not have depreciation deducted because of a lack of uniformity in depreciation policies adopted by Western Australian local government councils.

²⁵ Councils are required to report Total Assets Less Current Liabilities which they calculate as follows:

Total Assets Less Current Liabilities = Current Assets - current liabilities + non current assets + deferred assets + fixed assets.

Interest Groups

The state and municipality's population aged 20-years and over as determined in the 1991 census (Australian Bureau of Statistics, 1993) is used to calculate the variable, POP. The use of the 18-year old and over municipality and state population figures was preferred, however, this information was not readily available from the Australian Bureau of Statistics within the time frame of this study.

The total population of the state and municipality is not used because persons under the age of 18-years have no legal right to vote and therefore it could be perceived to have no influence on the council.

The equation for the variable, POP is:

$$\text{POP} = m / s$$

where:

m = municipality's population aged 20-years and over.

s = state population aged 20-years and over.

The second variable used as a surrogate for interest groups, is RATESYY. Ingram (1984) identified per capita income as a surrogate variable for interest groups. It was not possible to obtain sufficient data from the census information published by the Australian Bureaus of Statistics at the time of this study to calculate income per capita.

Instead of income per capita, rates per capita was proposed as a suitable surrogate. Rates per capita was discarded after initial statistical tests indicated a negative Pearson Product Moment Correlation coefficient because of the denominator, population, in the variable. Rates per capita is replaced by

the reported general purpose rates income of the council. The general purpose rates income is obtained from Schedule 3 of the 1991 and 1992 annual financial reports.

Electorate Participation in Council Elections

The variable VOTEYY was calculated only for the 1992 financial reports as it was not possible to obtain data for an appropriate earlier election from the Western Australian Department of Local Government. The variable VOTE92 was calculated from voter turnout and consolidated roll data supplied by the Department of Local Government for the 1992 local government elections.

Where no election occurred in a municipality in 1992, three options are available to score the variable, VOTE92: treat the council as missing, give a score of one or a score of zero. No election occurs because the incumbent councillor or a new councillor stands for re-election or election unopposed. A lack of a challenger may indicate complete satisfaction in the performance of the incumbent (or new councillor) or possibly a lack of interest in the community to challenge the incumbent (or new councillor). The latter view is perceived as possibly more prevalent in Western Australia, given the poor voter turnout at local government elections (16% average turnout in 1992). Therefore where no election occurred, a score of zero is given.

The equation for VOTE92 is:

$$\text{VOTE92} = v / c$$

where:

v = actual voter turnout for 1992 local government election

c = consolidated roll as at 1992 local government election

Statistical Analysis Techniques

Three statistical tests are performed to provide standard descriptive measures, to examine the relationship between the independent and dependent variables, and to examine the more complex environment in which Western Australian local government councils produce their annual financial reports.

The statistical packages - SPSS/PC+ Studentware and Systat version 4.1,²⁶ and the spreadsheet package - Microsoft Excel version 4 are used to perform all statistical tests in this thesis.

Univariate (Descriptive) Statistical Tests

Standard descriptive measures (mean, standard deviation, median, minimum and maximum) were calculated for each independent variable and for the population and sample dependant variables. These measures are reported and discussed in Chapter 5.

²⁶ SPSS/PC+ Studentware incorporates all the basic features of a fully functional version of the SPSS/PC+ system. It does not include the advanced statistical tests included in the SPSS/PC+ system.

Bivariate (Relationship) Statistical Tests

Two separate tests were carried out to measure the relationships between the dependent and independent variables. The Mann-Whitney U - Wilcoxon Rank Sum W test was used to measure the extent of the relationship between the dependent variables and the independent variable AUDSIZE because the variable AUDSIZE is dichotomous. The Pearson Product Moment Correlation coefficient test was used to measure the extent of the relationship between the remaining independent variables, the AUDSIZE variable, and the dependent variables. The results of these relationship tests are reported and discussed in Chapter 5.

Multicollinearity

Multicollinearity was tested for in the independent variables using (a) Pearson Product Moment Correlation coefficient, and (b) tolerance and variable inflation factor (VIF) tests in the multiple linear regression models. The results of the Pearson Product Moment Correlation coefficient tests for the independent variables are reported in Table 8.

A high correlation was recorded between the independent variables RATESYY and POP, which was confirmed as a collinearity problem by a low tolerance factor and a high variable inflation factor in the regression tests. To overcome this multicollinearity problem, each dependent variable was tested twice, once with the RATESYY variable in the linear regression models and once with the POP variable in the linear regression models.

Table 8**Pearson Product Moment Correlation coefficients - independent variables**

| | AUDSIZE | NEWS | DEBT91 | DEBT92 | POP | RATES91 | RATES92 |
|---------|--------------------|--------------------|--------------------|--------|--------------------|--------------------|---------|
| AUDSIZE | 1.000 | | | | | | |
| NEWS | 0.259 | 1.000 | | | | | |
| DEBT91 | 0.468 ^b | 0.203 | 1.000 | | | | |
| DEBT92 | 0.262 | 0.078 | 0.824 ^a | 1.000 | | | |
| POP | 0.282 | 0.543 ^a | 0.133 | 0.096 | 1.000 | | |
| RATES91 | 0.399 ^b | 0.415 ^b | 0.123 | 0.007 | 0.882 ^a | 1.000 | |
| RATES92 | 0.399 ^b | 0.406 ^b | 0.117 | 0.002 | 0.880 ^a | 0.999 ^a | 1.000 |
| VOTE92 | -0.081 | -0.189 | -0.241 | -0.148 | -0.244 | -0.192 | -0.189 |

a = 0.01, b = 0.05

Multivariate Statistical Tests

Two linear regression models were applied to test the relevance of the economic and political factors in explaining the reporting practices of Western Australian local government councils. A modified linear regression model was used for the 1992 dependent variables because of the additional independent variable, VOTE92, which tests the hypothesis concerning voter participation in local government elections.

The linear regression model applied to examine the relationship between the independent variables and the 1991 dependent variables is:

$$E(Y_j) = + {}_1X_{1j} + {}_2X_{2j} + {}_3X_{3j} + {}_4X_{4j} + j$$

where:

$$E(Y_j) = \text{COMSTA91 or VOLSTA91 or STATEM91 or} \\ \text{QUEST91 or TOTAL91}$$

$$X_{1j} = \text{AUDSIZE}$$

$$X_{2j} = \text{NEWS}$$

$$X_{3j} = \text{POP or RATES91}$$

$$X_{4j} = \text{DEBT91}$$

The linear regression model applied to examine the relationship between the dependent variables and the 1992 dependent variables is:

$$E(Y_j) = + {}_1X_{1j} + {}_2X_{2j} + {}_3X_{3j} + {}_4X_{4j} + {}_5X_{5j} + j$$

where:

$$E(Y_j) = \text{COMSTA92 or VOLSTA92 or STATEM92 or} \\ \text{DIST92 or TOTAL92}$$

$$X_{1j} = \text{AUDSIZE}$$

$$X_{2j} = \text{NEWS}$$

$$X_{3j} = \text{POP or RATES92}$$

$$X_{4j} = \text{DEBT92}$$

$$X_{5j} = \text{VOTE92}$$

As outlined in this chapter, three statistical tests are applied in this study. The results of the tests discussed in this chapter are reported in the following chapter.

CHAPTER 5 RESULTS

The purpose of this study, as outlined in Chapter 1, is to report on a measure of Western Australian local government councils' annual financial reporting practices and to identify possible explanatory economic and political factors.

The reporting of the results of this study reflects the dual thrust of this thesis, with the survey results reported and discussed first. This is followed by the discussion of the additional statistical tests performed to assess the explanatory power of the economic and political factors identified as possible explanations for the reporting practices of local government councils in Western Australia.

Survey of Disclosure in Councils' Annual Financial Reports

All 1991 and 1992 financial statements received were examined to determine a level of compliance with the reporting requirements of the Local Government Accounting Directions 1985. In addition the financial statements and the annual reports (if provided), were examined, for the provision of identified additional financial and non-financial information (see Chapter 4, Table 3) considered to enhance councils' discharging of their financial accountability responsibilities. A third aspect measured, is the council's policy of disseminating financial information to the municipality. This consisted of seeking the councils response to a mailed questionnaire (see Chapter 3 and Appendix 2).

Table 9**Summary disclosure index scores - all respondents**

| VARIABLE | MEAN | STD DEV | MEDIAN | MIN | MAX | VALID CASES |
|-----------------|-------------|--------------------|---------------|------------|------------|------------------------|
| COMSTA91 | 0.880 | 0.065 | 0.895 | 0.526 | 0.974 | 90 |
| COMSTA92 | 0.851 | 0.088 | 0.868 | 0.500 | 0.974 | 96 |
| VOLSTA91 | 0.078 | 0.076 | 0.063 | 0.000 | 0.313 | 90 |
| VOLSTA92 | 0.100 | 0.113 | 0.063 | 0.000 | 0.563 | 96 |
| STATEM91 | 0.643 | 0.058 | 0.648 | 0.407 | 0.778 | 90 |
| STATEM92 | 0.628 | 0.079 | 0.630 | 0.352 | 0.833 | 96 |
| DIST91 | 0.575 | 0.165 | 0.571 | 0.000 | 0.938 | 114 |
| DIST92 | 0.578 | 0.163 | 0.589 | 0.000 | 0.875 | 114 |
| TOTAL91 | 0.628 | 0.060 | 0.625 | 0.386 | 0.751 | 82 |
| TOTAL92 | 0.615 | 0.073 | 0.618 | 0.386 | 0.771 | 89 |

The summary results of the analysis of the financial reports and the responses to the questionnaire are summarised in Table 9 and discussed in the following section.

Compliance with Compulsory Reporting Requirements

Western Australian local government councils are required to prepare financial statements in accordance with the Local Government Act 1960-1982 and the Local Government Accounting Directions 1985. The variables COMSTA91 and COMSTA92 measure the extent of the disclosure in the

1991 and 1992 financial statements in accordance with these legislative requirements and are reported in Table 9.

The mean and median scores suggest a high level of compliance with the legislative requirements. This is in accordance with previous surveys of local government financial reports by Greenall et al. (1988) and Gynther (1982).

However, these high mean and median scores in part provide a misleading indication of the financial reporting practices of Western Australian local government councils (see Appendix 5 - Tables 20 and 21). In particular, there is not 100% compliance with regulation 51(6) of the Local Government Accounting Directions 1985, which requires the appending of a signed clerk's declaration to the financial statement.

A second matter that is reflected in this survey, is the practice of some councils to exclude program details and to exclude some schedules. In particular schedules such as Schedule 20 Salaries and Wages and Schedule 4 General Administration, have been excluded from some reports, yet it could be assumed they would be included by all councils.

The reporting schedules specified in the Local Government Accounting Directions 1985 are designed to ensure that councils report on the various activities undertaken by the council (see Table 1). The sparseness of and diversity of the population in Western Australia, would suggest that not all activities would be undertaken by all councils. It is expected that some schedules may be excluded from the financial statements because they are not applicable to the municipality, for example, schedules related to Housing, Welfare, Education, and Trading. However, it is common

practice, for those councils' who append a clerk's declaration to the financial statements, to use the default clerk's declaration (see Appendix 4).²⁷ If the default clerk's declaration is used, a user of the financial statements could reasonably assume, (a) that all the specified schedules are included, and (b) that all the schedules in the financial statements are in accordance with the relevant legislation and regulations. These assumptions may be incorrect if, (a) not all schedules are included in the financial statements, and/or (b) if Schedule 27 is included in the financial statements, while no declaration is made concerning its reliability.

To contribute to the adequate discharging of a council's accountability responsibilities, a more appropriate practice would be to (a) amend the default clerk's declaration to reflect those schedules actually in the financial statements, and (b) to include a comprehensive explanation explaining why schedules are excluded (if any).

Voluntary Reporting Practices

The Local Government Act 1960-1982 (§ 630(5)) allows Western Australian local government councils to provide additional information considered necessary or desirable by the council. The professional standards, private sector reporting practices and the literature were examined to identify several items which could be perceived as either necessary or desirable information to be included in councils' financial reports (see Chapter 3).

²⁷ Only one council in the survey, amended the default clerk's declaration to reflect to the actual schedules included in the financial statements.

This perception appears not to be supported by councils, as evidenced by the lack of additional financial or non-financial information (see Table 9 and Appendix 5 - Table 22) included in the annual reports and financial statements.

Within the private sector, the inclusion of audit reports in the annual financial statements is a mandatory reporting practice which is perceived as an essential aspect of an organisation's accountability responsibilities. With Western Australian local government financial reporting, the inclusion of the audit report in the financial statements is not, however, mandatory. It is suggested that the inclusion of the auditor's report, is required with local government financial reporting to ensure adequate discharging of a council's accountability responsibilities. An acceptance or awareness of the importance of the auditor's report is low among the surveyed councils, with only 45 (50%) councils including the auditor's report in their 1991 annual financial statements and 50 (52%) councils including the auditor's report in their 1992 annual financial statements.

Despite the recommendation for early adoption of the Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" (AARF, 1991, para. 7), only two councils reported financial information in partial compliance with the standard. The standard also recommends the provision of additional information as explanatory notes. The use of explanatory notes is at a marginally higher rate than the level of compliance with Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments."

The inclusion of performance indicators in the financial reports is encouraged in Australian Accounting Standard AAS 27 "Financial

Reporting by Local Governments" (AARF, 1991, para. 79), and is supported by the Victorian Municipal Accounting and Audit Practices Review Committee, 1990. Despite the support for the reporting of non-financial performance indicators, no council in the survey incorporated non-financial performance indicators in their 1991 or 1992 financial reports.

The Statement of Accounting Standards AAS 6 "Accounting Policies: Determination, Application and Disclosure" (AARF, 1986a) requires that financial statements include by way of a note, a summary of accounting policies clearly describing all policies applied in preparation and presentation of the financial statements. In particular, public sector reporting entities are required to "state whether they have fully employed the accrual basis in the preparation of such statements and, if they have not, shall describe the basis that has been employed" (AARF, 1986a, para. 15). Western Australian local government councils are required to use the income and expenditure basis of accounting and the cash receipts and payments basis of accounting as specified in the Local Government Accounting Directions, regulation 2(1). Compliance with Australian Accounting Standard AAS 6 "Accounting Policies: Determination, Application and Disclosure" was minimal with a statement of accounting policies only included in eight (9%) 1991 financial statements and 14 (15%) 1992 financial statements. This is despite auditors being required to ensure that either the title of the financial report or a note to the accounts clearly shows the basis of accounting used, if the accounts are prepared using a comprehensive basis of accounting other than that which is in accordance with the Australian Accounting Standards (Australian Accounting Research Foundation Auditing Standards Board [AARF], 1986b).

Powers et al. (1984) support the presentation of information in a graphical form as a means of aiding comprehension. The current approach to the presentation of financial information imposed upon Western Australian local government councils by legislation could be perceived as difficult to interpret by those users who may not have an appropriate accounting background. The use of graphics may assist such users in their interpretation of the financial reports. Less than 20% of councils surveyed, however provided an overall graphical representation of their income and expenditure and only one council provided income and expenditure pie graphs for each relevant schedule.

The survey results show that Western Australian local government councils voluntary disclosure of additional financial and non-financial information in their 1991 and 1992 financial reports is at best minimal.

The Dissemination of Annual Financial Statements

The Local Government Accounting Directions 1985 require councils to inform the municipality through a notice published in a newspaper circulating throughout the district, the availability of the annual financial statements. Before and for a reasonable time after the Annual General Meeting of electors, the council is required to make the financial statements available on request from ratepayers and creditors. Furthermore, the financial reports are required to be available for inspection at the council offices. To determine the level compliance with these regulations and to determine what additional policies councils adopt concerning the disseminating of their annual financial statements, councils were asked to respond to a ques-

tionnaire (see Appendix 2). The results of the questionnaire are summarised in Table 9 and Appendix 5 - Table 23.

Only one council indicated that they did not provide annual financial information to the municipality. All the remaining respondents indicated that they employed some method of notification to inform the municipality that the annual financial statements are available. However, only 90 (78%) respondents indicated that they complied with the regulations by publishing a notice in a newspaper circulating throughout the district. The most popular method of informing the municipality indicated by the respondents (104 [90%] in 1991 and 106 [92%] in 1992) is to include a note with the notice of the Annual General Meeting. The inclusion of a note with the notice of the Annual General Meeting may only inform one group of potential users, ratepayers, and may exclude other significant users who are also entitled to be adequately informed.

On the question of distributing the financial statements, 109 (95%) respondents indicated that they made financial statements available for inspection at the council's offices. Furthermore, 106 (92%) respondents indicated that the statements were available to participants at the annual general meeting. However 56 (53%) of these respondents indicated that information provided was in a summarised form, which is not in compliance with the regulations.

Most of the respondents indicated a policy of compliance with the regulations and several respondents, nine (8%), provided financial statements either in full or summarised (22%) form to all the residents and ratepayers as a matter of policy.

In summary, it is concluded that some effort is made by councils to inform the municipality of the availability of the financial information and to make the financial statements available on demand to interested parties.

Analysis of the Economic and Political Factors Explanatory Power

Several economic and political factors are identified from the literature, as having some possible explanatory power in relation to the financial reporting practices of Western Australian local government councils. To determine the relationship between these economic and political factors and the reporting practices of the councils, Pearson Product Moment Correlation coefficients and the Mann-Whitney U - Wilcoxon Rank Sum W are calculated. In addition, two linear regression models (see Chapter 4) are tested to assess the inter-relationship between the economic factors, their explanatory power and the variation in reporting by councils in their annual financial statements.

Both the testing of the linear regression model and the measuring of the relationship between the economic factors and the council reporting practices are carried out separately for the 1991 and 1992 financial reporting periods. This approach was taken, because it is anticipated that there would be an increased awareness among councils of both local government financial reporting and councils' accountability obligations prior to the 1991/92 financial year. This increased awareness is perceived to flow from the discussions associated with the development of and the promulgation in July

1991 of the Australian Accounting Standard AAS27 "Financial Reporting by Local Governments."²⁸

The remainder of this chapter discusses the results of the analysis of the explanatory power of the economic and political factors. The analysis was performed using a randomly selected stratified sample of councils (see Chapter 3). To determine if this sample represented all respondents to the questionnaire and the request for annual financial statements, a two-sample assuming equal variances students t-test was conducted. The dependent variables, COMSTAYY, VOLSTA91 and DISTYY were tested and the means were found to be statistically significantly equal at the alpha level, $\alpha \leq .05$. The variable VOLSTA92 means were found to be statistically significantly equal at the alpha level, $\alpha \leq .10$.

Outliers

Pearson Product Moment Correlation coefficient and the linear least squares regression are sensitive to outliers or extreme values (Hartwig & Dearing, 1979, Jobson, 1991) and therefore care should be taken when outliers are present in the sample data.

28

Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" was issued in July 1991 (AARF, 1991). This followed the publication of a discussion paper, Greenall et al. (1988) and the exposure draft ED 50 Financial Reporting by Local Government (AARF, 1989).

Table 10**Descriptive statistics - dependent variables - sample**

| VARIABLE | MEAN | STD DEV | MEDIAN | MIN | MAX | VALID CASES |
|-----------------|-------------|--------------------|---------------|------------|------------|------------------------|
| COMSTA91 | 0.896 | 0.050 | 0.921 | 0.737 | 0.974 | 44 |
| COMSTA92 | 0.858 | 0.081 | 0.868 | 0.553 | 0.974 | 46 |
| VOLSTA91 | 0.091 | 0.085 | 0.063 | 0.000 | 0.313 | 44 |
| VOLSTA92 | 0.101 | 0.111 | 0.063 | 0.000 | 0.375 | 46 |
| STATEM91 | 0.657 | 0.050 | 0.667 | 0.519 | 0.778 | 44 |
| STATEM92 | 0.634 | 0.073 | 0.630 | 0.407 | 0.778 | 46 |
| DIST91 | 0.578 | 0.149 | 0.571 | 0.214 | 0.857 | 56 |
| DIST92 | 0.582 | 0.146 | 0.607 | 0.214 | 0.857 | 56 |
| TOTAL91 | 0.643 | 0.054 | 0.632 | 0.544 | 0.750 | 42 |
| TOTAL92 | 0.622 | 0.073 | 0.618 | 0.426 | 0.765 | 44 |

In the statistical testing of the economic factors, two outliers were identified in the 1992 financial reports. These outliers resulted from two councils varying their reporting practice between 1991 and 1992 by not including the required program details for the specific schedules in their 1992 financial reports. Within the scope of this study, it is not possible to determine whether this is a one off change of behaviour by the council or whether it is a more permanent change in reporting practice.

Therefore, the recommended approach by Dunn and Clark (1987) and Hartwig and Dearing (1979) has been adopted and the 1992 results have been reported, both with the outliers included and excluded.

Table 11**Descriptive statistics - independent variable**

| VARIABLE | MEAN | STD | MEDIAN | MIN | MAX | VALID |
|----------------------|--------------------|------------|---------------|--------------------|------------|--------------|
| | DEV | | | | | CASES |
| AUDSIZE | 0.000 ^a | | 0.000 | 0.000 | 1.000 | 42 |
| NEWS | 0.330 | 0.228 | 0.270 | 0.006 | 0.866 | 47 |
| DEBT91 | 0.172 | 0.096 | 0.152 | 0.016 | 0.448 | 44 |
| DEBT92 | 0.143 | 0.107 | 0.122 | 0.013 | 0.602 | 46 |
| POP | 0.007 | 0.013 | 0.001 | 0.000 ^b | 0.059 | 59 |
| RATES91 ^c | 3,494,003 | 6,732,462 | 781,837 | 149,744 | 41,353,285 | 44 |
| RATES92 ^c | 3,445,160 | 7,244,680 | 745,371 | 187,619 | 44,623,583 | 45 |
| VOTE92 | 0.200 | 0.224 | 0.141 | 0.000 | 0.776 | 59 |

a = AUDSIZE is a dichotomous variable. Mode is reported here instead of the mean and standard deviation.

b = The actual minimum population ratio is 0.000283

c = The values reported for the RATESYY variable are in thousands of dollars.

Descriptive Statistics - Dependent and Independent Variables

Descriptive statistics are reported for the dependent variables (see Table 10) and the independent variables (see Table 11).

The results of the two sample assuming equal variances students t-test indicate that the dependent variable means are statistically significantly equal to the survey results.

The independent variables NEWS, DEBTYY, POP and VOTE92 are reported as ratios. The variable RATESYY is the council's actual general purpose rates income. The variable, AUDSIZE is a dichotomous variable, therefore, the mode as opposed to the mean and standard deviation is reported in Table 11.

The mean and median debt to assets ratio declined in 1992, with 39 (93%) councils in the sample who provided financial statements for both financial years, reporting a decrease in debt/asset ratios and three (7%) councils reporting an increase. The effect of this decline is discussed further in the discussion of the linear regression models later in this chapter.

The decline in the mean and median general purpose rates income reported in Table 11 must be treated with caution. Further analysis of the financial reports received for both periods indicates that 32 (78%) councils increased their general purpose rates income in 1992 and nine (22%) councils general purpose rates income declined in 1992. The decline reported in Table 11 is a result of the variation between the number of reports received in one reporting period and no matching report received for the subsequent or previous period.

The audit firm engaged by councils during the period under study was identified for 42 (71%) councils. Seven (17%) councils were audited by a big-six audit firm and 35 (83%) councils were audited by non-big six audit firms. Of the 35 councils audited by non-big six firms, 11 (31%) councils were audited by one audit firm, with the remainder of the councils being audited by any 1 of 14 other audit firms with no firm in this group auditing more than three (9%) councils.

Table 12**Pearson Product Moment Correlation coefficients - 1991 and 1992 variables**

| 1991 Financial Reports | | | | | |
|--|--------------------|--------------------|--------------------|--------|--------------------|
| | COMSTA91 | VOLSTA91 | STATEM91 | DIST91 | TOTAL91 |
| AUDSIZE | 0.413 ^b | -0.071 | 0.132 | -0.214 | -0.041 |
| NEWS | 0.401 ^b | 0.372 ^c | 0.450 ^b | 0.055 | 0.308 |
| DEBT91 | 0.338 ^c | -0.121 | 0.062 | -0.137 | -0.040 |
| POP | 0.632 ^a | 0.621 ^a | 0.735 ^a | 0.061 | 0.486 ^a |
| RATES91 | 0.601 ^a | 0.589 ^a | 0.696 ^a | -0.113 | 0.363 ^b |
| | | | | | |
| 1992 Financial Reports | | | | | |
| | COMSTA92 | VOLSTA92 | STATEM92 | DIST92 | TOTAL92 |
| AUDSIZE | 0.323 ^c | 0.201 | 0.360 ^c | -0.090 | 0.219 |
| NEWS | 0.005 | 0.544 ^a | 0.329 ^c | 0.069 | 0.272 |
| DEBT92 | -0.029 | -0.035 | -0.043 | -0.233 | -0.143 |
| POP | -0.124 | 0.741 ^a | 0.349 ^c | 0.164 | 0.333 ^c |
| RATES92 | 0.065 | 0.639 ^a | 0.430 ^b | -0.020 | 0.303 |
| VOTE92 | -0.028 | -0.188 | -0.133 | -0.216 | -0.200 |
| | | | | | |
| a = $\alpha \leq 0.01$ b = $\alpha \leq 0.05$ c = $\alpha \leq 0.10$ | | | | | |

Table 13

Pearson Product Moment Correlation coefficients with outliers removed - 1992 variables

| | COMSTA92 | VOLSTA92 | STATEM92 | DIST92 | TOTAL92 |
|--|--------------------|--------------------|--------------------|--------|--------------------|
| AUDSIZE | 0.417 ^b | 0.240 | 0.355 ^c | -0.074 | 0.204 |
| NEWS | 0.228 | 0.527 ^a | 0.444 ^b | 0.041 | 0.319 |
| DEBT92 | -0.030 | -0.041 | -0.041 | -0.240 | -0.143 |
| POP | 0.577 ^a | 0.724 ^a | 0.740 ^a | 0.081 | 0.538 ^b |
| RATES92 | 0.442 ^b | 0.614 ^a | 0.604 ^a | -0.068 | 0.375 ^c |
| VOTE92 | -0.133 | -0.178 | -0.177 | -0.208 | -0.200 |
| a = $\alpha \leq 0.01$ b = $\alpha \leq 0.05$ c = $\alpha \leq 0.10$ | | | | | |

Examination of the Relationship Between the Economic Factors and the Dependent Variables

Pearson Product Moment Correlation coefficient was calculated to determine the extent of the relationship between the economic factors and the financial reporting practices of the councils (see Table 12 and Table 13). In addition, a further test, the Mann-Whitney U - Wilcoxon Rank Sum W test was conducted to test the relationship between the dichotomous independent variable AUDSIZE and the dependent variables (see Table 14).

It is posited that there would be a positive relationship between the size of the audit firm engaged and the extent of compliance with the compulsory reporting requirements.

Table 14

Mann-Whitney U - Wilcoxon Rank Sum W Test - dependent variables by AUDSIZE

| | COMSTA91 | VOLSTA91 | STATEM91 | DIST91 | TOTAL91 |
|--------------------|----------|----------|----------|---------|---------|
| Number of cases | 35.00 | 35.00 | 35.00 | 41.00 | 34.00 |
| Mean rank (0.00) | 16.38 | 18.52 | 17.35 | 21.07 | 17.55 |
| Mean rank (1.00) | 27.70 | 14.90 | 21.90 | 20.64 | 17.20 |
| U | 26.50 | 59.50 | 55.50 | 116.50 | 71.00 |
| W | 138.50 | 74.50 | 109.50 | 144.50 | 86.00 |
| Exact 2 tailed p | 0.0187 | 0.4767 | 0.3692 | 0.9325 | 0.9624 |
| Corrected for ties | | | | | |
| Z | -2.3719 | -0.7521 | -0.9295 | -0.0871 | -0.0701 |
| 2-tailed p | 0.0177 | 0.4520 | 0.3526 | 0.9306 | 0.9415 |

| | COMSTA92 | VOLSTA92 | STATEM92 | DIST92 | TOTAL92 |
|--------------------|----------|----------|----------|---------|---------|
| Number of cases | 36.00 | 36.00 | 36.00 | 41.00 | 35.00 |
| Mean rank (0.00) | 16.77 | 17.71 | 17.00 | 20.99 | 17.15 |
| Mean rank (1.00) | 29.20 | 123.40 | 27.80 | 21.07 | 23.10 |
| U | 24.00 | 53.00 | 31.00 | 118.50 | 49.50 |
| W | 146.00 | 117.00 | 139.00 | 147.50 | 115.50 |
| Exact 2 tailed p | 0.0118 | 0.2818 | 0.0322 | 0.9865 | 0.2375 |
| Corrected for ties | | | | | |
| Z | -2.4792 | -1.1476 | -2.1396 | -0.0174 | -1.2050 |
| 2-tailed p | 0.0132 | 0.2511 | 0.0324 | 0.9861 | 0.2282 |

Similarly it is expected that there would be a positive relationship between audit firm size and the council's level of voluntarily disclosure and the distribution of the financial reports.

A statistically significant relationship does exist between the COMSTAYY variable and audit firm size. This suggests that there is a relationship between the audit firm size and the extent to which local government councils present their annual financial reports in compliance with the regulatory requirements. However, the position taken cannot be supported for the dependent variables TOTALYY, DISTYY, STATEM91 and VOLSTAYY as there is some variance in the significance of the coefficient between the two reporting periods.

The second independent variable examined was newspaper circulation (NEWS). It is suggested that there is positive relationship between the influence of the community newspaper, measured by circulation size and the degree of disclosure in councils' annual financial reports. That is the local newspaper, through setting an agenda's for community discussion can influence the council to disclose more financial information than possibly it would have done, had no community discussion taken place.

Some conflict exists between the 1991 results and the 1992 results. However, a positive relationship appears to exist between the extent of voluntary disclosure in financial reports and the influence of the local newspaper. This would suggest that the local newspaper's ability to bring issues to the fore in the community is possibly related to the council's inclusion of additional financial information over and above the mandatory requirements.

The third economic variable considered was the extent of the council's loan liability. It is suggested that councils with a high level of debt would be inclined to disclose additional information to reduce their interest costs. Except for the dependent variable COMSTA91, the results were not significant and a negative relationship is suggested rather than the positive relationship originally postulated. This result suggests that as the debt levels decrease the level of disclosure increases. It is noted that frequently where councils' debt obligations had been reduced, an emphasis was placed on the achievement of the debt reduction in the mayor's or president's report.

The variables RATESYY and POP were used as surrogate measures for the forming of interest groups. The literature suggests that high population levels and high levels of general purpose rates income (used here instead of rates per capita) are catalysts for the forming of interest groups or interest groups with an interest in government affairs. It is suggested that interest groups can exert influence upon the council, such that the council will in turn be more responsive to their concerns. This responsiveness will be reflected in a higher level of disclosure in the annual financial reports.

The results suggest a strong relationship between the population size and council's financial reporting and to a lesser extent between the general purpose rates income and council's financial reporting.

The final independent variable examined was electorate participation in the 1992 local government elections. Due to data related to the 1991 election or a suitable earlier election not being available, this relationship was examined only in association with the 1992 financial reports. It is argued that councils, being of a political nature would be sensitive to the level of voter turnout in elections and that a positive relationship would exist

Table 15

Pearson Product Moment Correlation coefficient for metropolitan/non-metropolitan councils by independent variable VOTE92

Non-Metropolitan Councils in Sample

| | COMSTA92 | VOLSTA92 | STATEM92 | DIST92 | TOTAL92 |
|--------|----------|----------|----------|--------|---------|
| VOTE92 | -0.227 | -0.185 | -0.234 | -0.334 | -0.324 |

Metropolitan Councils in Sample

| | COMSTA92 | VOLSTA92 | STATEM92 | DIST92 | TOTAL92 |
|--------|----------|----------|----------|--------|--------------------|
| VOTE92 | 0.313 | 0.412 | 0.447 | 0.511 | 0.618 ^a |

^a = $\alpha \leq 0.10$

between voter participation and the extent of disclosure in the annual financial reports.

The results suggest a negative relationship may exist between the voter participation and disclosure in councils annual reports. This result may in part, be affected by a variance in the voting participation rate between the metropolitan (14%) and non-metropolitan (24%) municipal elections. The relationship between the dependent variables and the independent variable, VOTE92, was measured separately for metropolitan councils and non-metropolitan councils (see Table 15). The coefficients are negative for non-metropolitan councils and positive for metropolitan councils. This result may be explained by a tendency for smaller councils, which are predominantly located outside the metropolitan area, to rate lower in the disclosure

index than larger councils predominantly located within the metropolitan area.

In summary, the Pearson Product Moment Correlation Coefficient and Mann-Whitney U - Wilcoxon Rank Sum W tests have confirmed the existence only of a relationship between the population variable and the extent to which councils discharge their accountability responsibilities overall. Individual relationships have also been confirmed between specific economic factors and components of the statements and the statements themselves, ie., auditor and compulsory disclosure; newspapers and voluntary disclosure, statements overall; rates and voluntary disclosure, statements overall. No relationship was identified between the economic factors and the council's policy of disseminating annual financial information to the municipality.

These findings highlight the complexity of the environment in which local governments councils must operate and report to discharge their accountability responsibilities. To investigate this complex environment further, four linear regression models are tested.

Examination of the Linear Regression Models

Two linear regression models are developed to test the hypothesis posited. One model relates to the 1991 financial reports and the second model, which includes the variable VOTE92 relates to the 1992 financial reports.

Table 16**1991 linear regression model with POP variable****Dependent Variable - COMSTA91**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.016 | 0.015 | 1.119 | 0.274 |
| NEWS | 0.022 | 0.026 | 0.865 | 0.396 |
| DEBT91 | -0.005 | 0.054 | -0.100 | 0.921 |
| POP | 0.789 | 0.380 | 2.074 | 0.049 |
| Constant | 0.898 | 0.012 | 72.027 | 0.000 |

 $r^2 = 0.382$ Adjusted $r^2 = 0.275$ $n = 28$ $F = 3.566$ $p = 0.021$
Dependent Variable - VOLSTA91

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.051 | 0.042 | -1.230 | 0.231 |
| NEWS | 0.031 | 0.072 | 0.435 | 0.668 |
| DEBT91 | -0.112 | 0.150 | -0.748 | 0.462 |
| POP | 3.694 | 1.046 | 3.532 | 0.002 |
| Constant | 0.087 | 0.034 | 2.538 | 0.018 |

 $r^2 = 0.460$ Adjusted $r^2 = 0.367$ $n = 28$ $F = 4.908$ $p = 0.005$
Dependent Variable - DIST91

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.078 | 0.082 | -0.951 | 0.352 |
| NEWS | 0.038 | 0.143 | 0.266 | 0.793 |
| DEBT91 | -0.068 | 0.298 | -0.227 | 0.823 |
| POP | 0.852 | 2.043 | 0.417 | 0.681 |
| Constant | 0.590 | 0.062 | 8.770 | 0.000 |

 $r^2 = 0.067$ Adjusted $r^2 = -0.103$ $n = 27$ $F = 0.394$ $p = 0.811$

Table 17**1991 linear regression model with POP variable - continued**

| Dependent Variable - STATEM91 | | | | |
|--------------------------------------|---------------------|-------------------------|----------|------------------|
| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
| AUDSIZE | -0.003 | 0.016 | -0.199 | 0.844 |
| NEWS | 0.025 | 0.028 | 0.896 | 0.380 |
| DEBT91 | -0.037 | 0.059 | -0.632 | 0.534 |
| POP | 1.650 | 0.409 | 4.034 | 0.001 |
| Constant | 0.658 | 0.013 | 49.103 | 0.000 |

$r^2 = 0.559$ Adjusted $r^2 = 0.483$ $n = 28$ $F = 7.296$ $p = 0.001$

Dependent Variable - TOTAL91

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|-----------------|---------------------|-------------------------|----------|------------------|
| AUDSIZE | -0.022 | 0.026 | -0.812 | 0.426 |
| NEWS | 0.022 | 0.046 | 0.466 | 0.656 |
| DEBT91 | -0.029 | 0.095 | -0.299 | 0.768 |
| POP | 1.479 | 0.650 | 2.277 | 0.033 |
| Constant | 0.646 | 0.022 | 30.226 | 0.000 |

$r^2 = 0.280$ Adjusted $r^2 = 0.150$ $n = 27$ $F = 2.142$ $p = 0.109$

Because of the collinearity between the independent variables POP and RATESYY each model is run twice, once with the POP variable and once with the RATESYY variable. Outliers, as previously discussed, were detected in the 1992 sample data, and therefore the 1992 model was run twice, once with the outliers included and once with the outliers excluded. Tables 16 and 17 report the results of the regression model for the 1991 reporting period, using the variable POP in the model. A significant explanation is provided by the model for the variations in the level of disclosure of compulsory financial information, voluntary financial reporting practices

Table 18**1992 linear regression model with POP variable - outliers removed****Dependent Variable - COMSTA92**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.024 | 0.019 | 1.295 | 0.209 |
| NEWS | -0.004 | 0.033 | -0.134 | 0.894 |
| DEBT92 | -0.018 | 0.056 | -0.323 | 0.750 |
| POP | 1.419 | 0.595 | 2.383 | 0.026 |
| VOTE92 | -0.018 | 0.033 | -0.529 | 0.602 |
| Constant | 0.8885 | 0.016 | 55.955 | 0.000 |

 $r^2 = 0.403$ Adjusted $r^2 = 0.268$ $n = 28$ $F = 2.982$ $p = 0.033$
Dependent Variable - VOLSTA92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.010 | 0.045 | -0.219 | 0.828 |
| NEWS | 0.119 | 0.084 | 1.415 | 0.170 |
| DEBT92 | -0.123 | 0.142 | -0.864 | 0.397 |
| POP | 4.382 | 1.247 | 3.515 | 0.002 |
| VOTE92 | -0.068 | 0.085 | -0.801 | 0.432 |
| Constant | 0.081 | 0.040 | 2.023 | 0.055 |

 $r^2 = 0.567$ Adjusted $r^2 = 0.473$ $n = 28$ $F = 6.031$ $p = 0.001$
Dependent Variable - DIST92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.026 | 0.086 | -0.309 | 0.760 |
| NEWS | 0.063 | 0.156 | 0.403 | 0.691 |
| DEBT92 | -0.389 | 0.262 | -1.483 | 0.153 |
| POP | 0.167 | 2.756 | 0.061 | 0.952 |
| VOTE92 | -0.212 | 0.157 | -1.351 | 0.190 |
| Constant | 0.654 | 0.073 | 8.926 | 0.000 |

 $r^2 = 0.152$ Adjusted $r^2 = -0.049$ $n = 27$ $F = 0.756$ $p = 0.591$

Table 19

1992 linear regression model with POP variable - outliers removed -
continued

Dependent Variable - STATEM92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.011 | 0.022 | 0.517 | 0.610 |
| NEWS | 0.030 | 0.039 | 0.771 | 0.449 |
| DEBT92 | -0.046 | 0.065 | -0.705 | 0.488 |
| POP | 2.464 | 0.694 | 3.551 | 0.002 |
| VOTE92 | -0.032 | 0.039 | -0.821 | 0.420 |
| Constant | 0.646 | 0.018 | 35.059 | 0.000 |

$r^2 = 0.577$ Adjusted $r^2 = 0.480$ $n = 28$ $F = 5.993$ $p = 0.001$

Dependent Variable - TOTAL92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.003 | 0.032 | 0.106 | 0.916 |
| NEWS | 0.036 | 0.058 | 0.628 | 0.536 |
| DEBT92 | -0.116 | 0.097 | -1.194 | 0.245 |
| POP | 1.992 | 1.025 | 1.942 | 0.065 |
| VOTE92 | -0.068 | 0.058 | -1.178 | 0.252 |
| Constant | 0.647 | 0.027 | 23.763 | 0.000 |

$r^2 = 0.352$ Adjusted $r^2 = 0.198$ $n = 27$ $F = 2.283$ $p = 0.083$

and the overall reporting in annual financial statements by Western Australian local government councils.

The model provides a marginally significant explanation for the variation in councils' overall reporting of their annual financial information and dissemination of their annual financial statements.

Some variation was found in the explanatory power of the model in relation to the disclosure in and distribution of the 1992 financial reports because of the model's sensitivity to the outliers. The results of the model (variable POP), with the outliers removed, are reported in Tables 18 and 19 and with the outliers included in Appendix 5 - Tables 24 and 25.

With the outliers removed, a significant explanation is provided by the model for the variation in the reporting of compulsory financial information, voluntary financial reporting practice, and the overall reporting in annual financial statements by Western Australian local government councils. In relation to the overall reporting and distributing of annual financial information by councils in West Australia, the model provides a more significant explanation than for 1991.²⁹

The ability of the linear regression model to explain the variation in financial reporting practices adopted by Western Australian councils and their policies of disseminating this financial information is measured by the adjusted R^2 of the models. The 1991 model's adjusted R^2 is 0.15 and the 1992 model's adjusted R^2 is 0.20. This is a similar result to that reported by Ingram (1984) in a study of state government financial reporting in the United States.

Because of high levels of collinearity between the independent variables POP and RATESYY, both the 1991 and 1992 models were tested a second time, substituting the independent variable RATESYY for POP. Appendix 5 - Tables 26 and 27 report the results of the regression model for the 1991 re-

²⁹ Because the 1992 linear regression model includes the additional variable, VOTE92, a second linear regression model, which excluded the variable VOTE92 was tested. This model produced similar results to the model reported.

reporting period, using the independent variable RATES91 in the model. A significant explanation is provided by model for the variations in the level of disclosure of compulsory financial information, and the voluntary financial reporting practices adopted by Western Australian local government councils. The model, unlike the variation using the POP variable, does not provide a significant explanation for the variation in councils' overall reporting of annual financial information and dissemination of their annual financial statements.

As with the 1992 linear model which included the independent variable, POP, the 1992 model with the independent variable, RATES92, was run twice. Once with the outliers included and once with the outliers removed. As with the previous model (variable POP), some variation was found in the explanatory power of the model in relation to disclosure and dissemination of the 1992 financial reports because of the outliers. The results of the model (variable RATES92), with the outliers removed, are reported in Appendix 5 - Tables 28 and 29 and with the outliers included, in Appendix 5 - Tables 30 and 31.

With the outliers removed, a significant explanation is provided by the model for the variations in the council's voluntary financial reporting practices and their overall reporting in annual financial statements. Variations in the reporting of compulsory items, the overall reporting practices of councils and distribution of annual financial information by councils is not explained by this version of the linear regression model.

Overall the linear regression models suggest that the economic and political factors examined, as a group, have some explanatory power in relation to the variation in annual financial reporting by Western Australian local

government councils. This explanatory power is stronger with the inclusion of the POP variable than with the inclusion of the RATESYY variable, suggesting the POP variable is a better surrogate for interest group formation. Due to the significance of the results, the remaining discussion will be primarily related to the 1991 linear regression model and the 1992 linear regression model with outliers removed.

Besides reporting on the interaction between the economic factors considered associated with financial reporting by Western Australian local government councils, the linear regression models were used to test the hypotheses discussed in Chapter 3.

Both the 1991 and 1992 (outliers removed) linear regression models are dominated by the independent variable POP and to a lesser extent by the variable RATESYY. The variables POP and RATESYY are used as surrogate measures for interest group formation and to test the null hypotheses, H_04 and H_05 . It is posited that the variation in the financial reporting by Western Australian local government councils is not related to that portion of the state's population that constitutes the municipality's population, and secondly, is not related to the general purpose rates income of the council.

The independent variable POP is significant ($p \leq .05$) in both the 1991 and 1992 linear regression models used to provide some explanation for the variation in compulsory and voluntary reporting practices of Western Australian local government councils. As well, the variable is significant ($p \leq .10$) in the 1991 and 1992 regression models used to provide some explanation for the variation in the overall reporting and distributing of annual financial information by councils.

A possible explanation for the significance of the variable, POP, is that councils with larger populations tend to be more 'separated' from the municipality than smaller councils. This 'gap' has the effect of making communications between the council and municipality more formal and sophisticated than those between councils with smaller populations, where more informal communication channels may exist. To communicate with councils which have more formal channels of communication, interest groups would be expected to be more effective and prevalent. This is reflected in the results which suggest that councils with higher populations have higher levels of disclosure in their financial reports than councils with smaller populations. Therefore the null hypothesis, H_04 can be rejected.

The results of the model using the independent variable RATESYY are more variable. A significant explanatory power is only reported in relation to the variation in councils' voluntary reporting practices and the overall disclosure in the 1991 and 1992 statements, compulsory reporting practices in 1991 and the overall financial reporting and dissemination of financial information in 1991. Given the inconsistency in the results, the null hypothesis H_05 cannot be rejected.

General purpose rates income was used as a substitute for income per capita, a measure used by Ingram (1984), as a surrogate for interest group formation. The results would suggest that rates income is possibly not a suitable surrogate for interest group formation.

The third hypothesis tested was H_02 , that is, the variation in the financial reporting by Western Australian local government councils is not related to the council's perception of the ability of the local newspaper to set an agenda of issues for public debate. Newspaper circulation (NEWS) is used as a

surrogate measure for the ability of the newspaper to set an agenda of issues for public debate.

The independent variable NEWS also displays some inconsistency in its explanatory power. At a probability level of $p \leq .10$, NEWS (in linear regression model with the RATESYY variable) demonstrated some explanatory power in relation to the variation in the financial statements in 1991 (see Appendix 5 - Table 27) and at a $p \leq .05$, the voluntary component of the 1992 statements (see Appendix 5 - Table 28). Given this lack of consistency, the null hypothesis, H_{02} , cannot be rejected.

This result is consistent with Ingram (1984) who expressed some concern with the suitability of newspaper circulation as surrogate measure. However, the nature of the newspaper industry in Western Australia is such, that some municipalities are served by either newspapers circulated as free papers or newspapers for which a payment is made or a combination of both. The level of influence exerted could be affected by the type of newspaper, with free newspapers possibly having less of an emphasis on journalistic content.

The remaining independent variables tested, AUDSIZE, DEBTYY and VOTE92 have no explanatory power in the models and therefore the hypotheses, H_{01} , H_{03} , and H_{06} cannot be rejected.

The independent variable, AUDSIZE, is used to test the hypothesis, H_{01} : The variation in the financial reporting by Western Australian local government councils is not related to the size of the audit firm engaged as the council's auditor. The variable AUDSIZE, provided no significant explanatory power in the models and therefore the null hypothesis cannot

be rejected. This is in contrast to the Robbins, Apostolou and Strawser (1986) who found that audit firm size is a significant economic factor and other related literature (see Chapter 2) which suggests a relationship between audit size and audit quality. This result may have occurred because, (a) one non-big six firm appears to specialise in local government auditing, and/or (b) there is a high level (35 [86%]) of audits being performed by non-big six auditors.

The null hypothesis, H_03 : The variation in the financial reporting by Western Australian local government councils is not related to the level of debt incurred by the municipality, cannot be rejected. The models suggest an inverse relationship which was not as expected. This may be because debt levels declined during the period under study with this reduction, as previously discussed, being highlighted by councils in their annual reports. A longitudinal study would possibly be more appropriate to determine if this negative relationship is consistent or a result of the trend exhibited in the period covered by this study.

The final null hypothesis tested was H_06 : The variation in the financial reporting by Western Australian local government councils is not related to the level of voter participation in local government election, cannot be rejected. The results of the model suggest an inverse (-) relationship to that predicted, which may be related to the variation in voter participation between the metropolitan and non-metropolitan councils (see Table 15). There are two other possible explanations, which may also have affected the results indicated in the model. The first possible explanation is that the results of the election which was held in May 1992, may not have yet actually flowed through to influence the financial reporting practices adopted by the council. The second possible explanation, is related to the formation of

Western Australian councils. Councillors are elected for varying terms with the result that only some members of the council will be standing for election in any one year. Therefore, a high voter turnout at an election may influence the behaviour of those councillors elected at the particular election, while having only a minimal or no influence on those councillors not standing for re-election. This relationship requires further investigation and a longitudinal study would better establish voting patterns and the relationship between these voting patterns and the variation in Western Australian local government councils' financial reporting practices.

The linear regression models while only identifying the population variable as having some explanatory power, have shown that the council's financial reporting is conducted in a complex environment. Further research is required to establish a better understanding of why councils adopt various reporting practices.

In developing a linear regression model several important assumptions are made (Schroeder, Sjoquist & Stephan, 1986, p. 66), which are: (a) the correct independent variables are included, (b) variables are measured accurately, (c) independent variables are in fact independent of each other, (d) the data constitutes a random sample, and (e) the residual error term is 'well behaved'. The assumption (c) has been addressed through the use of Pearson Product Moment Correlation coefficient, tolerance and variable inflation factor tests to detect collinearity. Collinearity was detected between the independent variables, POP and RATESYY. These variables were tested separately in the linear regression models.

Assumption (d), that is, the data constitutes a random sample, is assumed to be correct, as a random number generator was used to select a stratified random sample of Western Australian local government councils.

Two issues relate to the behaviour of the residual error term (assumption [e]). The first of these issues, is autocorrelation or serial correlation, which is more likely to occur with error terms associated with successive time periods (Berry & Feldman, 1985, Harrison & Tamaschke, 1984, Jobson, 1991, Schroeder et al., 1986). As the data being studied was not of successive time periods, no statistical tests were performed to test for autocorrelation. Instead the residual plots resulting from the regressions were visually examined for evidence of wavelike or sawtooth patterns (Harrison & Tamaschke, 1984) which may suggest the possibility of autocorrelation. Neither pattern was detected.

The second issue is concerned with heteroscedasticity, which refers to a non-random pattern in the residual error term (Schroeder et al., 1986). The regression residuals were examined for a systematic widening (or narrowing) of their distribution (Harrison & Tamaschke, 1984). Neither pattern was detected.

Assumption (b) is concerned with the correct measurement of the variables. In collecting the data for the independent variables, independent sources have been used where possible. The exception to this is the newspaper circulation data, where it was not possible to get independent audited circulation figures. Reliance had to be placed upon newspaper publishers to provide accurate circulation figures.

With dependent variables established through the use of disclosure indexes, the researcher is required to make judgements in calculating the measure of

disclosure. To minimise the subjectivity of the disclosure indexes a non-weighted index has been used. In addition, where possible, the basis of the disclosure indexes has been established from the local government accounting regulations, reporting requirements specified or recommended in the appropriate accounting standards, the literature and current private sector reporting practices.

Errors could also possibly occur in the collecting of the dependent variables. To minimise the possibility of errors, random checks were made of the data collected, descriptive statistics were calculated and the data was examined for variations from what was expected.

The final assumption concerns the exclusion of explanatory variables. This is an exploratory study and therefore the exclusion of one or more independent variables is a possibility. To minimise this possibility, the literature was reviewed to identify those economic factors that could possibly provide some explanation for the variation in Western Australian local government councils' financial reporting. While no specific statistical tests for excluded independent variables was identified, evidence of heteroscedasticity in the regression models may provide some indication that explanatory variables have been omitted (Berry & Feldman, 1985, Harrison & Tamaschke, 1984). Examination of the regression residual plots provided no evidence of heteroscedasticity.

A further aspect associated with the linear regression models tested in this study is the treatment of missing data. Not all data sources were able to/ or where willing to cooperate with this study and therefore it was not possible to obtain a complete set of data for all councils in the sample. To overcome this problem, the regression models were tested using listwise deletion, that

is if one or more variables are missing for a case, the case is excluded from the test. This resulted in a marginally low sample size being tested in the regression models.

In summary it has been possible, in the main, to confirm the assumptions associated with the linear regression model. However, this research is exploratory and while it has provided some explanation for Western Australian local government councils' financial reporting, more specific research is required to provide a deeper understanding of the financial reporting policies of local government councils in Western Australia. The following chapter discusses the possibilities for further research, the limitations of this study and concludes this study with a summary of the findings.

CHAPTER 6 CONCLUSION

This study is a survey of current financial reporting practices of Western Australian local government councils and an examination of several economic and political factors which may provide some explanation for these current reporting practices. The second facet of this study involved the examination of several identified economic and political factors, of which only population has been shown to have some strong explanatory power. This suggests that councils with larger populations, adopt more sophisticated reporting practices than those councils with smaller populations, which allows them to more adequately discharge their accountability responsibilities. Accountability, however, is just as relevant in small municipalities as it is in large ones, and while alternate means may exist for the communication of financial information in the smaller municipalities, the adequacy of these communication methods is undetermined. It has not been possible within the scope of this study, to investigate further, why it appears that councils with larger populations adopt more sophisticated reporting practices. Further research into this area would provide valuable information to assist in enhancing the way all Western Australian local government councils discharge their financial accountability responsibilities.

The results of the survey have shown that while there is a significant level of compliance with the compulsory reporting requirements overall, there are a number areas where compliance appears to be inadequate. Furthermore, councils have in the main not taken up the option provided in the legislation to disclose necessary or desirable financial information beyond the mandatory requirements. Such additional disclosure would see them discharging their accountability responsibilities more adequately.

With Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" coming into effect with the first reporting period ending on or after 1 January 1994 (AARF, 1991), some reporting deficiencies highlighted in this study may be addressed. However, the introduction of Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" (AARF, 1991) will not significantly improve the discharging of councils' financial accountability responsibilities if (a) compliance is not adequately addressed, and (b) the variance in reporting practices between councils with small and large populations is not overcome.

Limitations

A review of the literature suggests that there have been no published studies similar to this thesis, investigating Australian local government financial reporting or in particular Western Australian local government financial reporting. Previous studies by Evans and Patton (1983), Ingram (1984) and Robins, Apostolou and Strawser (1986) of United States governmental financial reporting, while identifying some economic factors worthy of further examination, their findings are not able to be generalised to Western Australia. Similarly, research conducted in the United Kingdom (Chandler et al., 1985, Chandler & Cook, 1986, Chartered Institute of Public Finance and Accountancy, 1987, Jones & Pendlebury, 1982 & 1991, Kilgour & Lapsley, 1988), while reporting on a system of local government from which the Western Australian system is based, has only limited applicability to Western Australia. Therefore, this thesis, being of a necessity, is very exploratory, with its findings warranting further investigation to establish a better understanding of financial reporting by local government councils in Western Australia.

A second aspect associated with the exploratory nature of this research, is the collection of financial reports from the councils. Every effort was made to obtain all councils' financial reports for the period under study, however for various reasons, not all councils responded in full. In addition, several councils provided either photocopies or unbound copies of their financial reports, which could not be verified for completeness.

In conjunction with the collection of financial reports, councils were requested to provide additional information related to their disseminating of annual financial information by responding to a questionnaire. It was not possible, within the scope of this study, to verify the responses to the questionnaire.

Difficulties were also experienced in collecting the circulation figures for those newspapers circulating in the municipalities under study. Because of copyright laws and not all newspapers being audited, it was not possible to obtain audited circulation figures for all newspapers represented in this study. Instead it was necessary to sometimes rely on estimates provided by the newspaper publishers.

In scoring disclosure indexes an element of subjectivity must be applied by the researcher, for example, to what degree must a council report before it is considered to be complying with the regulations? To overcome this problem, detailed information has been provided in this study to allow replication or adjustment in future research if this is deemed appropriate.

Further Research

This study, which examines in part, the financial reporting practices of Western Australian local government councils, while being exploratory, has identified several relationships considered worthy of more specific study.

As reported, there appears to be some relationship between the population size of a municipality and the variance in reporting practices of councils. This study, while identifying the existence of a relationship has only considered one possible explanation - interest group formation. Other possible explanations or associated factors which may warrant further investigation include (a) other alternate methods that may be used by councils and in particular smaller councils to communicate financial information to their municipalities, (b) expertise/qualifications of the council staff involved in the preparation of the financial reports, and (c) perceptions of the councillors and senior council administrators of financial reporting. As outlined previously, further research into this aspect may assist in the development of regulations or other appropriate measures to enhance the discharging of councils' accountability responsibilities.

Some concerns have been noted pertaining to the degree of compliance with accounting regulations and accounting standards, areas subject to auditor scrutiny. However, the explanatory power of the independent variable, auditor size, was not statistically significant in the linear regression models. More specific research is required to investigate the auditor size/local government financial reporting relationship to determine if the

relationship indicated in the literature, exists in local government.³⁰ Such research would assist regulators in establishing appropriate audit practices.

Similarly, a relationship is identified between the ability of newspapers to set an agenda of issues for public debate and the variation in reporting practices adopted by Western Australian local government councils. While this study does identify a relationship, it is beyond the scope of this study to investigate this relationship in any depth. Of particular interest, is the extent that local or community newspapers report on financial matters related to councils, what form these reports take, and if this reporting is a substitute method used by councils to communicate financial information to their municipality.

A fourth economic factor examined in this study, is the council's level of debt. It is posited that there would be a positive relationship between a council's debt level and its financial disclosure. The initial findings of this study suggest a negative relationship between the council's level of debt and its annual financial reporting practices. The limited reporting period examined in this study may have influenced this preliminary finding. A longitudinal study may be more appropriate to examine if a relationship exists between the variation in Western Australian local government councils' financial reporting practices and their debt levels.

The final economic factor considered in this study is voter participation in local government elections. The initial findings indicate a negative relationship between voter participation in local government elections and the variation in Western Australian local government councils' financial

30 See Davidson & Neu, 1993, DeAngelo, 1981a, 1981b, Deis & Groux, 1992, Francis, 1984, Gul, 1989, Knapp, 1991, U.S. Government Accounting Office, 1986, Shockley, 1981, and Teoh and Wong 1993.

reporting practices. It is suggested that two possible aspects that may have some effect on these findings are, (a) voter participation was higher in non-metropolitan councils than metropolitan councils, and (b) not all councillors stand for election at any one election. It was only possible, within the scope of this study, to examine the relationship regarding the 1992 local government elections. A longitudinal study may provide a better understanding of the relationship (if any) between voter participation and the variance in financial reporting by Western Australian local government councils.

Two other aspects of this study that may warrant further investigation relate to (a) the fact that no Western Australian local government council in this survey reported any non-financial performance measures, and (b) only two councils partially complied with Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments." Early compliance with Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" and the reporting of non-financial performance measures are recommended by the professional accounting bodies (AARF, 1991). Such research may assist regulators in evaluating whether new or reissued standards need to be promulgated or other measures established to have Western Australian local government councils report non-financial performance measures. Similarly, research into the early adoption of Australian Accounting Standard AAS 27 "Financial Reporting by Local Governments" may provide standards setters with a better understanding of why councils did or did not adopt the standard and whether such multi-year adoption periods are appropriate for the public sector.

In summary, it should be noted that this study has examined the reporting practices of Western Australia local government councils and no allowance

or control has been made for reporting practices pertaining to other legislatures. Care, therefore, should be taken in attempting to generalise these results to explain the reporting behaviour of councils constituted under other legislative bodies. To provide a better understanding of reporting practices by local government councils in other Australian states and to examine further the economic factors investigated in this study, similar studies of councils constituted under other legislative bodies is recommended.

REFERENCES

Australian Accounting Research Foundation [AARF]. (1986a). Statement of accounting standards AAS 6 "Accounting policies: Determination, application and disclosure". Melbourne: Australian Accounting Research Foundation.

Australian Accounting Research Foundation Auditing Standards Board [AARF]. (1986b). Statement of auditing practice AUP 3.2 "Special purpose auditor's reports". Melbourne: Australian Accounting Research Foundation.

Australian Accounting Research Foundation [AARF]. (1989). Exposure draft ED 50 "Financial reporting by local government". Melbourne: Australian Accounting Research Foundation.

Australian Accounting Research Foundation Public Sector Accounting Standards Board [AARF] & Accounting Standards Review Board [ASRB]. (1990). Statement of accounting concepts SAC 2 "Objective of general purpose financial reporting". Melbourne: Australian Accounting Research Foundation and the Accounting Standards Review Board.

Australian Accounting Research Foundation Public Sector Accounting Standards Board [AARF]. (1991). Australian accounting standard AAS 27 "Financial reporting by local governments". Melbourne: Australian Accounting Research Foundation.

Australian Accounting Research Foundation Public Sector Accounting Standards Board. (1993, 24 August). Amendments to Australian accounting standard AAS27 "Financial reporting by local governments" (Media release). Melbourne: Australian Accounting Research Foundation.

Australian Bureau of Statistics. (1992). Local government: Western Australia 1990-91 (Cat. No. 1303.5). Perth: Australian Bureau of Statistics.

Australian Bureau of Statistics. (1993). Census counts for small areas: Western Australia 1991 census of population & housing (Cat. No. 2730.5). Canberra: Australian Bureau of Statistics.

Benson, E. D., Marks, B. R., & Raman, K. K. (1991). The effect of voluntary GAAP compliance and financial disclosure on governmental borrowing costs. Journal of Accounting, Auditing & Finance, 6(3), 303-324.

Berry, W. D. & Feldman, S. (1985). Multiple regression in practice. Beverly Hills: Sage Publications, Inc.

Buzby, S. L. (1974). Selected items of information and their disclosure in annual reports. The Accounting Review, 44, 423-435.

Buzby, S. L. (1975). Company size, listed versus unlisted stocks, and the extent of financial disclosure. Journal of Accounting Research, 13, 16-37.

Capeci, J. (1991). Credit risk, credit ratings, and municipal bond yields: A panel study. National Tax Journal, 44(4), 41-56.

Chandler, R. & Cook, P. (1986). Compliance with disclosure standards in published reports and accounts of local authorities. Financial Accountability & Management, 2, 75-88.

Chandler, R., Cook, P., & Pearson, J. (1985). Local authority reports and accounts: A 1985 survey. London: Chartered Institute of Public Finance and Accountancy.

Chartered Institute of Public Finance and Accountancy. (1987). Local authority accounts: Survey of current practice 1987. London: Chartered Institute of Public Finance and Accountancy.

Cooke, T. E. (1989). Disclosure in the corporate annual reports of Swedish companies. Accounting and Business Research, 19(74), 113-124.

Cooke, T. E. (1993). Disclosure in Japanese corporate annual reports. Journal of Business Finance and Accounting, 20, 521-535.

Davidson, R. A. & Neu, D. (1993). A note on the association between audit firm size and audit quality. Contemporary Accounting Research, 9, 479-488.

DeAngelo, L. E. (1981a). Auditor size and audit quality. Journal of Accounting and Economics, 3, 183-199.

DeAngelo, L. E. (1981b). Auditor independence, 'low balling', and disclosure regulation. Journal of Accounting and Economics, 3, 113-127.

Deis, D. R. Jr & Giroux, G. A. (1992). Determinants of audit quality in the public sector. The Accounting Review, 67, 462-479.

- Dunn, O. J. & Clark, V. A. (1987). Applied statistics: Analysis of variance and regression (2nd Ed.). New York: John Wiley & Sons.
- Drebin, A. R., Chan, J. L. & Ferguson, L. C. Objectives of accounting reporting for governmental units: A research study (Vol I). Chicago: National Council on Governmental Accounting.
- Dye, T. R. (1969). Politics in states and communities. New Jersey: Prentice-Hall Inc.
- Evans III, J. H. & Patton, J. M. (1983). An economic analysis of participation in the Municipal Finance Officers Association Certificate of Conformance program. Journal of Accounting and Finance, 5, 151-175.
- Firth, M. (1979). The impact of size, stock market listing, and auditors on voluntary disclosure in corporate annual reports. Accounting and Business Research, 9(36), 273-280.
- Firth, M. (1980). Raising finance and firms' corporate reporting policies. Abacus, 16(1), 100-115.

- Francis, J. R. (1984). The effect of audit firm size on audit prices: A study of the Australian market. Journal of Accounting and Economics, 6, 133-151.
- Giroux, G. (1989). Political interests and governmental accounting disclosure. Journal of Accounting and Public Policy, 8, 199-217.
- Giroux, G. & Deis, D. (1993). Investor interests and government accounting disclosure. Accounting, Auditing & Accountability Journal, 6(1), 63-78.
- Gray, R., Owen, D. & Maunders, K. (1987). Corporate social reporting. Englewood Cliffs: Prentice-Hall Inc.
- Greenall, D. T., Paul, J. & Sutcliffe, P. (1988). Financial reporting by local government (Discussion Paper No. 12). Melbourne: Australian Accounting Research Foundation.
- Gul, F. A. (1989). Banker's perceptions of factors affecting auditor independence. Accounting, Auditing & Accountability Journal, 2(3), 40-51.

Gynther, R. S. (1982). Some thoughts on what local government accounting should be about. A paper presented at the 1982 Annual Conference of the Local Government Accountants Association of Queensland. Melbourne: Coopers & Lybrand.

Harrison, S. R. & Tamaschke, H. U. (1984). Applied statistical analysis. Sydney: Prentice-Hall of Australia Pty Ltd.

Hartwig, F. & Dearing, B. E. (1979). Exploratory data analysis. Beverly Hills: Sage Publications Inc.

Haseman, W. D. & Strauss, R. P. (1981). The quality of financial reporting by general purpose local government. In A. R. Drebin, J. L. Chan and L. C. Ferguson, Objectives of accounting and financial reporting for governmental units: A research study (Vol. 11). Chicago: National Council on Governmental Accounting.

Ingram, R. W. (1984). Economic incentives and the choice of state government accounting practices. Journal of Accounting Research, 22, 126-144.

Ingram, R. W. (1987). Tests of the fund accounting model for local governments. Contemporary Accounting Research, 3(1), 200-221.

- Ingram, R. W. & Copeland, R. M. (1981). Disclosure practices in audited financial statements of municipalities. Public Budgeting and Finance, 1(2), 47-58.
- Jobson, J. D. (1991). Applied multivariate data analysis: Volume 1: Regression and experimental design. New York: Springer-Verlag Inc.
- Jones, R. & Pendlebury, M. (1982). Uniformity v. flexibility in the published accounts of local authorities: The UK problem and some European solutions. Accounting & Business Research, 12, 129-135.
- Jones, R. & Pendlebury, M. (1991). The published accounts of local authorities, revisited. Financial Accountability & Management, 7, 15-33.
- Kilgour, L. & Lapsley, I. (1988). Financial reporting by local authorities in Scotland. Edinburgh: The Institute of Chartered Accountants of Scotland and The Chartered Institute of Public Finance and Accountancy.
- Killen, H. (1985). Local government and the media: The black and white of being read. Local Government Bulletin, 40(5), 20-24.

Knapp, M. C. (1991). Factors that audit committee members use as surrogates for audit quality. Auditing: A Journal of Practice and Theory, 10(1), 35-51.

Lapsley, I. (1992). User needs and financial reporting: A comparative study of local authorities and the National Health Service. Financial Accountability & Management, 8, 281-298.

Langsam, S. A. & Kreuze, J. G. (1991). An investigation of the characteristics of local governmental units disclosing high deposit and investment credit risk as defined by Governmental Accounting Standards Board Statement No. 3. Public Budgeting & Finance, 11(4), 49-62.

Local Government Accounting Directions 1985. (1985, June 13). Government Gazette. Perth, Western Australia: Government Printer.

Local Government Act 1960-1982. (1982). Perth, Western Australia: Government Printer.

Local Government Auditors Regulations 1982. (1982, December, 17). Government Gazette. Perth, Western Australia: Government Printer.

- Marston, C. L. & Shrives, P. J. (1991). The use of disclosure indices in accounting research: A review article. British Accounting Review, 23, 195-210.
- Mayston, D. (1992). Capital accounting, user needs and the foundations of a conceptual framework for public sector financial reporting. Financial Accountability & Management, 8, 227-248.
- McCornbs, M. & Shaw, D. L. (1972). The agenda-setting function of the mass media. Public Opinion Quarterly, 36, 176-187.
- McKeon, A. (Ed). (1991, October). Australia's top firms - 1991 rankings. Chartac Accountancy News (No. 167), pp. 3.
- McKeon, A. (Ed). (1992, October). Australia's top firms - 1992 rankings. Chartac Accountancy News (No. 177), pp. 3.
- Municipal Accounting and Audit Practices Review Committee. (1990). Review of Municipal Accounting Regulations. Melbourne: Local Government Department.

Powers, M., Lashley, C., Sanchez, P. & Shneiderman, B. (1984). An experimental comparison of tabular and graphic data presentation. International Journal of Man-Machine Studies, 20, 545-566.

U.S. Government Accounting Office. (1986). CPA audit quality: Many governmental audits do not comply with professional standards. Washington: U.S. Government Printing Office.

Robbins, W. A. & Austin, K. R. (1986). Disclosure quality in governmental financial reports: An assessment of the appropriateness of a compound measure. Journal of Accounting Research, 24, 412-421.

Robbins, W. A., Apostolou, N. G. & Strawser, R. H. (1986). Variables influencing pension disclosure in municipal annual reports: Some empirical evidence. The Mid-Atlantic Journal of Business, 24(2), 21-29.

Schroeder, L. D., Sjoquist, D. L., & Stephan, P. E. (1986). Understanding regression analysis: An introductory guide. Beverly Hills: Sage Publications Inc.

Shockley, R. A. (1981). Perceptions of auditors' independence: An empirical analysis. The Accounting Review, 56, 785-800.

- Singhvi, S. S. & Desai, H. B. (1971). An empirical analysis of the quality of corporate financial disclosure. The Accounting Review, 46, 129-138.
- Taylor, N. V. (1989). Local authority accounting: The development of a conceptual framework. Financial Accountability & Management 5, 19-38.
- Teoh, S. W. & Wong, T. J. (1993). Perceived auditor quality and the earning response coefficient. The Accounting Review, 68, 346-366.
- Tichenor, P. J., Donohue, G. A. & Owen, C. N. Community Conflict & The Press. Beverly Hills: Sage Publications Inc.
- Wallace, R. S. O. (1988). Corporate financial reporting in Nigeria, Accounting and Business Research, 18, 352-362.
- Walmsley, D. J. (1989). Country town newspapers and regional consciousness: A New England case study. Urban Policy and Research, 7(2), 60-66.
- Ziegler, L. H. & Van Dalen, H. (1976). Interest groups in state politics. In H. Jacob and K. N. Vines (Eds), Politics in the American states: A comparative analysis (3rd ed.). Boston: Little, Brown and Company.

Zimmerman, J. L. (1978). The municipal accounting maze: An analysis of political incentives. The Journal of Accounting Research (Suppl), 15, 107-144.

**APPENDIX 1 LOCAL GOVERNMENT ACCOUNTING DIRECTIONS 1985 -
FINANCIAL STATEMENT SCHEDULES**

| | |
|--------------------------------|---|
| Schedule 1 | Balance Sheet and Accumulation Account |
| Schedule 2 | Municipal Fund Statement of Financial Activity |
| Schedule 3 | General Purpose Income |
| Schedule 4^a | General Administration |
| Schedule 5^a | Law, Order, Public Safety |
| Schedule 6^a | Education |
| Schedule 7^a | Health |
| Schedule 8^a | Welfare |
| Schedule 9^a | Housing |
| Schedule 10^a | Community Amenities |
| Schedule 11^a | Recreation and Culture |
| Schedule 12^a | Transport |
| Schedule 13^a | Economic Services |
| Schedule 14^a | Other Property and Services |
| Schedule 15^a | Fund Transfers |
| Schedule 16^a | Finance and Borrowing |
| Schedule 17^a | Trading Fund |
| Schedule 18^a | Parking Fund |
| Schedule 19 | Special Overdraft |
| Schedule 20 | Allocation of Salaries and Wages |
| Schedule 21 | Trust Fund |
| Schedule 22 | Loan Fund |
| Schedule 23 | Reserve Fund |
| Schedule 24 | Statement of Fixed Assets Capitalised |
| Schedule 25 | Loan Liability Statement |
| Schedule 26 | Abbreviated Statement of Financial Position |
| Schedule 27 | Base Grant Matching Expenditure |

^a Schedule 26 is incorporated into each of these statements as the "program summary".

APPENDIX 2 QUESTIONNAIRE

The questionnaire used in this study and the associated correspondence follows this title page.



EDITH COWAN UNIVERSITY

PERTH WESTERN AUSTRALIA

FINANCIAL REPORTING BY LOCAL GOVERNMENTS: SURVEY OF WESTERN AUSTRALIAN PRACTICE

Your assistance in providing the following information in support of this research project is greatly appreciated.

Please circle the appropriate selection(s):

- Q1. Does your council provide annual financial information to the ratepayers and/or residents of the council?

YES

NO

If NO, please go to Q4

- Q2. Did the council notify the residents and/or ratepayers that annual financial information was available by publishing an announcement of its availability?

| | 1990/1991 | | 1991/92 | |
|--|-----------|----|---------|----|
| Formal notice published in local newspaper informing residents of the existence of the financial report. | YES | NO | YES | NO |
| Notice included with rates account. | YES | NO | YES | NO |
| Notice included with Announcement of the annual general meeting. | YES | NO | YES | NO |
| Other (please specify). | YES | NO | YES | NO |

Q3. How did the council actually provide annual financial information in the financial years 1990/91 and 1991/92 to the residents?

| | 1990/1991 | | 1991/92 | |
|--|-----------|----|---------|----|
| Advertisement or other promotional material included in the local newspaper providing summarised annual financial information. | YES | NO | YES | NO |
| Press release providing summary information. | YES | NO | YES | NO |
| Annual financial information enclosed with rate notices. | YES | NO | YES | NO |
| If YES was the information summarised? | YES | NO | YES | NO |
| Distributed annual financial information with notice of Annual General Meeting. | YES | NO | YES | NO |
| If YES was the information summarised? | YES | NO | YES | NO |
| Annual financial report provided to participants in the Annual General Meeting. | YES | NO | YES | NO |
| If YES was the information summarised? | YES | NO | YES | NO |
| Annual financial report distributed directly to all residents. | YES | NO | YES | NO |
| If YES was the information summarised? | YES | NO | YES | NO |
| Annual financial report distributed directly to all ratepayers. | YES | NO | YES | NO |
| If YES was the information summarised? | YES | NO | YES | NO |
| Annual financial report distributed to ratepayers on demand. | YES | NO | YES | NO |
| If YES was the information summarised? | YES | NO | YES | NO |
| Annual financial report distributed to residents on demand. | YES | NO | YES | NO |
| If YES was the information summarised? | YES | NO | YES | NO |
| Available to be viewed at the authority's library(s). | YES | NO | YES | NO |
| Available to be viewed at the authority's offices. | YES | NO | YES | NO |
| Other (please specify) | YES | NO | YES | NO |

Q4. For the 1993 Local Government elections, could you please provide the following information:

- (a) Number of enrolled electors within the council's boundaries for the 1993 election:

- (b) Actual number of persons who voted in the 1993 Local Government elections:

- (c) Were candidates standing in all wards? **YES** **NO**

If **NO**, could you please indicate the total number of wards within your authority and the number for which candidates stood for the 1993 election.

Total number of wards: _____

Number of wards in which more than one candidate stood: _____

- Q5. Have the financial statements been audited?** **YES** **NO**

If **YES**, please provide the name of the audit firm. _____

Please indicate if you would like to receive a summary or full copy of our report.

Summary ☐

Full Report [Cost: \$25.00] ☐

The following details would be appreciated in case we require any clarification or further information.

Name of council: _____

Contact Person: _____

Direct Contact number: _____



**EDITH COWAN
UNIVERSITY**

PERTH WESTERN AUSTRALIA
CHURCHLANDS CAMPUS

**FACULTY OF BUSINESS
School of Accounting**

Pearson Street, Churchlands
Western Australia 6018
Telephone (09) 383 8333
Facsimile (09) 383 8754

«DATA LOCAL GOVT ADDRESS»

14 July 1993

«SALUTATION» «FIRST NAME» «SURNAME»
«ORGANISATION»
«ADDRESS»
«LOCATION» «STATE» «POSTCODE»

Dear Sir,

We are currently undertaking a research project into the annual financial reporting by Western Australian local authorities under the auspices of the Edith Cowan University's School of Accounting.

The research project, which is a survey and analysis of local authority reporting practice, has the objective of providing an understanding of local authority reporting and to provide information that will be useful for assessing the relative costs and benefits of reporting rules for local authorities.

To assist in this research, your completion of the attached questionnaire is requested. It would be appreciated if the questionnaire was completed and returned to the address below by 6 August 1993.

Associate Professor Colin Dolley
Head, School of Accounting
Edith Cowan University
Pearson Street
CHURCHLANDS WA 6018

Should you have any queries regarding the enclosed questionnaire or the research project, please do not hesitate to contact the undersigned at the above address or by phone on (09) 383 8738.

Your cooperation is appreciated.

Thankyou.

Yours sincerely,

COLIN DOLLEY
Associate Professor
Head, School of Accounting

ANDREW PRIEST
Research Student

APPENDIX 3 CORRESPONDENCE - FINANCIAL REPORT COLLECTION

The correspondence related to the collection of the financial reports follows
this title page.



**EDITH COWAN
UNIVERSITY**

PERTH WESTERN AUSTRALIA
CHURCHLANDS CAMPUS

Pearson Street, Churchlands
Western Australia 6018
Telephone (09) 383 8333
Facsimile (09) 387 7095

Dear

To provide resources for our Business students studying Public Accounting, the Edith Cowan University Library is developing a collection of the annual reports and financial statements of all Australian local government authorities.

In particular, Mr Andrew Priest, an Edith Cowan University research student, is conducting a survey of local government financial reporting in Western Australia. In order to undertake this research, he is required to examine the 1990/91 and 1991/92 annual reports and financial reports of ALL the local government areas in Western Australia.

It would be greatly appreciated if this data could be supplied as soon as possible to assist in the research and also to form the foundation for the development of the Library's local government collection.

Please forward the annual and financial reports for 1990/91 and 1991/92, and address all future correspondence to:

Ms Brita Lim
Librarian : Faculty of Business
Edith Cowan University Library
Pearson Street
CHURCHLANDS WA 6018

Can we also ask that you place us on your mailing list to receive future reports as they are produced.

Your assistance in this project is greatly appreciated.

Please contact me on (09) 383 8701 (ph) or (09) 383 8018 (fax) if you require any other information.

Thank you again for your assistance.

Yours sincerely

Julie Fitzgerald
Librarian : Faculty of Business (Acting)

«DATA 2nd letter addresses»

19 August 1993

«SALUTATION» «First Name» «SURNAME»
«TITLE»
«ORGANISATION»
«ADDRESS»
«LOCATION» «STATE» «POSTCODE»

Dear «SALUTATION» «SURNAME»

Early in July, we wrote to you requesting copies of your Council's 1990/91 and 1991/92 financial data in order to assist in Edith Cowan University research. To date, we have had no response from you, but hope that this does not mean that you are unable to help us.

In detail, we require the 1990/91 and 1991/92 financial statements prepared in compliance with the relevant local government act and your annual reports for those years (or any other documents providing a summary of annual financial data).

Can you also place us on your mailing list to receive a copy of all future annual reports as they are produced.

We greatly appreciate your urgent response to our request.

Please contact me on (09) 383 8701 (phone) or (09) 383 8018 (fax) if you require any further assistance.

Thank you for your help.

Yours sincerely

Julie Fitzgerald
Librarian : Faculty of Business (Acting)

JF:EH

APPENDIX 4 DEFAULT CLERK'S DECLARATION

CLERKS DECLARATION

I hereby certify that the balance sheet of the as at June 30th, 19.... and the supporting schedules 2 to 25 for the year ended on that date, are to the best of my knowledge true and correct and in accordance with the books of account of the..... and that the books of account and other accounting records are maintained in accordance with the Local Government Act 1960 and Local Government Accounting Directions 1985.

DATED SIGNED

TOWN/SHIRE CLERK

Source: Local Government Accounting Directions 1985 (regulation 51(6)).

APPENDIX 5 STATISTICAL ANALYSIS - ADDITIONAL TABLES

Tables 20 to 31 follow this title page.

Table 20**Compulsory disclosure items - 1991 financial statements - all respondents**

| Schedules/Item | | Program Summary | | Program Detail | |
|----------------|--------------------------------|-----------------|----------------|----------------|----------------|
| No. | Name | N | % ^a | N | % ^a |
| | Clerk's Declaration | 68 | 75.56% | - | - |
| 1 | Balance Sheet | 90 | 100.00% | - | - |
| 2 | Financial Activity | 89 | 98.89% | - | - |
| 3 | General Purpose Income | 90 | 100.00% | - | - |
| 4 | Administration | 90 | 100.00% | 89 | 98.89% |
| 5 | Law, Order, Public Safety | 90 | 100.00% | 89 | 98.89% |
| 6 | Education | 76 | 84.44% | 76 | 84.44% |
| 7 | Health | 90 | 100.00% | 88 | 97.78% |
| 8 | Welfare | 67 | 74.44% | 65 | 72.22% |
| 9 | Housing | 85 | 94.44% | 83 | 92.22% |
| 10 | Community Amenities | 90 | 100.00% | 88 | 97.78% |
| 11 | Recreation and Culture | 90 | 100.00% | 89 | 98.89% |
| 12 | Transport | 89 | 98.89% | 89 | 98.89% |
| 13 | Economic Services | 90 | 100.00% | 89 | 98.89% |
| 14 | Other Property and Services | 90 | 100.00% | 89 | 98.89% |
| 15 | Fund Transfers | 88 | 97.78% | - | - |
| 16 | Finance and Borrowing | 88 | 97.78% | - | - |
| 17 | Trading Fund | 6 | 6.67% | - | - |
| 18 | Parking | 2 | 2.22% | - | - |
| 19 | Special Overdraft | 19 | 21.11% | - | - |
| 20 | Salaries and Wages | 86 | 95.56% | - | - |
| 21 | Trust Fund | 90 | 100.00% | - | - |
| 22 | Loan Fund | 77 | 85.56% | - | - |
| 23 | Reserve Fund | 86 | 95.56% | - | - |
| 24 | Fixed Assets Capitalised | 87 | 96.67% | - | - |
| 25 | Loan Liability Statement | 88 | 97.78% | - | - |
| 27 | Base Grant Matching | 77 | 85.56% | - | - |

^a = Percentage of respondents

Table 21**Compulsory disclosure items - 1992 financial statements - all respondents**

| Schedules/Item | | Program Summary | | Program Detail | |
|----------------|-----------------------------|-----------------|----------------|----------------|----------------|
| No. | Name | N | % ^a | N | % ^a |
| | Clerk's Declaration | 68 | 70.83% | - | - |
| 1 | Balance Sheet | 96 | 100.00% | - | - |
| 2 | Financial Activity | 96 | 100.00% | - | - |
| 3 | General Purpose Income | 95 | 98.96% | - | - |
| 4 | Administration | 95 | 98.96% | 93 | 96.88% |
| 5 | Law, Order, Public Safety | 95 | 98.96% | 91 | 94.79% |
| 6 | Education | 79 | 82.29% | 78 | 81.25% |
| 7 | Health | 95 | 98.96% | 92 | 95.83% |
| 8 | Welfare | 71 | 73.96% | 68 | 70.83% |
| 9 | Housing | 89 | 92.71% | 86 | 89.58% |
| 10 | Community Amenities | 95 | 98.96% | 92 | 95.83% |
| 11 | Recreation and Culture | 95 | 98.96% | 92 | 95.83% |
| 12 | Transport | 95 | 98.96% | 93 | 96.88% |
| 13 | Economic Services | 95 | 98.96% | 92 | 95.83% |
| 14 | Other Property and Services | 95 | 98.96% | 93 | 96.88% |
| 15 | Fund Transfers | 95 | 98.96% | - | - |
| 16 | Finance and Borrowing | 96 | 100.00% | - | - |
| 17 | Trading Fund | 10 | 10.42% | - | - |
| 18 | Parking | 4 | 4.17% | - | - |
| 19 | Special Overdraft | 19 | 19.79% | - | - |
| 20 | Salaries and Wages | 90 | 93.75% | - | - |
| 21 | Trust Fund | 93 | 96.88% | - | - |
| 22 | Loan Fund | 76 | 79.17% | - | - |
| 23 | Reserve Fund | 95 | 98.96% | - | - |
| 24 | Fixed Assets Capitalised | 91 | 94.79% | - | - |
| 25 | Loan Liability Statement | 90 | 93.75% | - | - |
| 27 | Base Grant Matching | 20 | 20.83% | - | - |

^a = Percentage of respondents

Table 22**Voluntarily reporting practices - 1991 and 1992 financial statements - all respondents**

| Item | 1991 | | 1992 | |
|---|------|----------------|------|----------------|
| | N | % ^a | N | % ^a |
| Auditor Reports: | | | | |
| Auditor's report | 45 | 50.00% | 50 | 52.08% |
| Auditor's management report | 6 | 6.67% | 6 | 6.25% |
| AAS27 Financial Statements: | | | | |
| - Operating statement | 0 | 0.00% | 1 | 1.04% |
| - Financial position | 0 | 0.00% | 2 | 2.08% |
| - Owner's equity | 0 | 0.00% | 2 | 2.08% |
| - Sources & Application | 0 | 0.00% | 0 | 0.00% |
| - Classification by Fund | 0 | 0.00% | 0 | 0.00% |
| Notes/Explanations: | | | | |
| - Basis of accounting | 8 | 8.89% | 14 | 14.58% |
| - Notes to accounts | 31 | 34.44% | 31 | 32.29% |
| - Budget Established | 1 | 1.11% | 0 | 0.00% |
| - Rates Deployed | 0 | 0.00% | 2 | 2.08% |
| - Variance explained | 5 | 5.56% | 6 | 6.25% |
| - Schedules explained | 2 | 2.22% | 4 | 4.17% |
| Graphics: | | | | |
| - Income/Expenditure | 14 | 15.56% | 17 | 17.71% |
| - Schedules | 0 | 0.00% | 1 | 1.04% |
| Non-financial performance measures | | | | |
| | 0 | 0.00% | 0 | 0.00% |

^a = Percentage of respondents

Table 23**Dissemination of 1991 and 1992 annual financial reports - all respondents**

| Question | 1991 | | 1992 | |
|--|------|--------|------|--------|
| | N | % | N | % |
| Financial information provided to residents / ratepayers? | 114 | 99.13% | 114 | 99.13% |
| Municipality notified of availability of financial information by: | | | | |
| - Published formal notice | 90 | 78.26% | 90 | 78.26% |
| - Notice with rates account | 14 | 12.17% | 14 | 12.17% |
| - Notice with AGM notice | 104 | 90.43% | 106 | 92.17% |
| - Other means | 9 | 7.83% | 9 | 7.83% |
| Council provided / distributed annual financial information: | | | | |
| - By advertisement | 27 | 23.48% | 28 | 24.35% |
| - By press release | 29 | 25.22% | 29 | 25.22% |
| - With rates notice | 25 | 21.74% | 24 | 20.87% |
| - Summarised | 5 | 20.00% | 4 | 16.67% |
| - With notice of AGM | 55 | 47.83% | 55 | 47.83% |
| - Summarised | 22 | 40.00% | 22 | 40.00% |
| - To AGM participants | 106 | 92.17% | 106 | 92.17% |
| - Summarised | 56 | 52.83% | 56 | 52.83% |
| - Directly to residents | 9 | 7.83% | 9 | 7.83% |
| - Summarised | 2 | 22.22% | 2 | 22.22% |
| - Directly to ratepayers | 9 | 7.83% | 10 | 8.70% |
| - Summarised | 1 | 11.11% | 1 | 11.11% |
| - On demand to ratepayers | 85 | 73.91% | 85 | 73.91% |
| - Summarised | 50 | 58.82% | 50 | 58.82% |
| - On demand to residents | 83 | 72.17% | 83 | 72.17% |
| - Summarised | 49 | 59.04% | 49 | 59.04% |
| - Able to be viewed at library | 95 | 82.61% | 95 | 82.61% |
| - Able to be viewed at offices | 109 | 94.78% | 109 | 94.78% |
| - Other | 3 | 2.61% | 3 | 2.61% |

Table 24**1992 linear regression model with POP variable****Dependent Variable - COMSTA92**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.067 | 0.033 | 2.037 | 0.053 |
| NEWS | 0.028 | 0.061 | 0.465 | 0.646 |
| DEBT92 | -0.064 | 0.103 | -0.615 | 0.544 |
| POP | -1.133 | 0.907 | -1.249 | 0.224 |
| VOTE92 | -0.027 | 0.062 | -0.436 | 0.667 |
| Constant | 0.894 | 0.029 | 30.605 | 0.000 |

 $r^2 = 0.176$ Adjusted $r^2 = -0.002$ $n = 29$ $F = 0.985$ $p = 0.448$
Dependent Variable - VOLSTA92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.010 | 0.045 | -0.219 | 0.828 |
| NEWS | 0.119 | 0.084 | 1.415 | 0.170 |
| DEBT92 | -0.123 | 0.142 | -0.864 | 0.397 |
| POP | 4.382 | 1.247 | 3.515 | 0.002 |
| VOTE92 | -0.068 | 0.085 | -0.801 | 0.432 |
| Constant | 0.081 | 0.040 | 2.023 | 0.055 |

 $r^2 = 0.567$ Adjusted $r^2 = 0.473$ $n = 29$ $F = 6.031$ $p = 0.001$
Dependent Variable - DIST92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.041 | 0.080 | -0.514 | 0.612 |
| NEWS | 0.051 | 0.153 | 0.336 | 0.740 |
| DEBT92 | -0.372 | 0.256 | -1.453 | 0.160 |
| POP | 1.058 | 2.232 | 0.474 | 0.640 |
| VOTE92 | -0.208 | 0.154 | -1.351 | 0.190 |
| Constant | 0.651 | 0.071 | 9.048 | 0.000 |

 $r^2 = 0.167$ Adjusted $r^2 = -0.021$ $n = 28$ $F = 0.885$ $p = 0.507$

Table 25**1992 linear regression model with POP variable - continued**

Dependent Variable - STATEM92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.044 | 0.030 | 1.498 | 0.148 |
| NEWS | 0.055 | 0.055 | 1.007 | 0.324 |
| DEBT92 | -0.081 | 0.093 | -0.874 | 0.391 |
| POP | 0.501 | 0.814 | 0.615 | 0.545 |
| VOTE92 | -0.039 | 0.055 | -0.705 | 0.488 |
| Constant | 0.668 | 0.036 | 18.519 | 0.000 |

 $r^2 = 0.255$ $\text{Adjusted } r^2 = 0.093$ $n = 29$ $F = 1.578$ $p = 0.206$ **Dependent Variable - TOTAL92**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|-----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.026 | 0.033 | 0.789 | 0.438 |
| NEWS | 0.054 | 0.063 | 0.861 | 0.398 |
| DEBT92 | -0.141 | 0.106 | -1.327 | 0.198 |
| POP 0.615 | 0.927 | 0.663 | 0.514 | |
| VOTE92 | -0.074 | 0.064 | -1.156 | 0.260 |
| Constant | 0.652 | 0.029 | 21.839 | 0.000 |

 $r^2 = 0.219$ $\text{Adjusted } r^2 = 0.042$ $n = 28$ $F = 1.240$ $p = 0.324$

Table 26**1991 linear regression with RATES91 variable****Dependent Variable - COMSTA91**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.012 | 0.016 | 0.766 | 0.451 |
| NEWS | 0.034 | 0.024 | 1.384 | 0.179 |
| DEBT91 | 0.003 | 0.055 | 0.056 | 0.955 |
| RATES91 | 1.33E-09 | 7.40E-10 | 1.801 | 0.084 |
| Constant | 0.896 | 0.012 | 70.501 | 0.000 |

 $r^2 = 0.357$ Adjusted $r^2 = 0.246$ $n = 28$ $F = 3.204$ $p = 0.031$
Dependent Variable - VOLSTA91

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.080 | 0.042 | -1.882 | 0.072 |
| NEWS | 0.072 | 0.064 | 1.115 | 0.276 |
| DEBT91 | -0.065 | 0.147 | -0.445 | 0.660 |
| RATES91 | 7.29E-09 | 1.95E-09 | 3.737 | 0.001 |
| Constant | 0.078 | 0.033 | 2.334 | 0.028 |

 $r^2 = 0.482$ Adjusted $r^2 = 0.392$ $n = 28$ $F = 5.354$ $p = 0.003$
Dependent Variable - DIST91

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.076 | 0.098 | -0.780 | 0.443 |
| NEWS | 0.193 | 0.152 | 1.272 | 0.216 |
| DEBT91 | -0.202 | 0.343 | -0.590 | 0.561 |
| RATES91 | -1.90E-09 | 4.46E-09 | -0.362 | 0.721 |
| Constant | 0.566 | 0.077 | 7.350 | 0.000 |

 $r^2 = 0.127$ Adjusted $r^2 = -0.031$ $n = 27$ $F = 0.802$ $p = 0.536$

Table 27**1991 linear regression with RATES91 variable - continued****Dependent Variable - STATEM91**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.015 | 0.017 | -0.876 | 0.389 |
| NEWS | 0.045 | 0.026 | 1.734 | 0.096 |
| DEBT91 | -0.017 | 0.059 | -0.290 | 0.774 |
| RATES91 | 3.10E-09 | 7.87E-10 | 3.936 | 0.001 |
| Constant | 0.654 | 0.013 | 48.348 | 0.000 |

$r^2 = 0.550$ Adjusted $r^2 = 0.472$ $n = 28$ $F = 7.037$ $p = 0.001$

Dependent Variable - TOTAL91

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.031 | 0.032 | -0.979 | 0.338 |
| NEWS | 0.072 | 0.050 | 1.432 | 0.166 |
| DEBT91 | -0.044 | 0.113 | -0.390 | 0.700 |
| RATES91 | 1.96E-09 | 1.477E-09 | 1.329 | 0.197 |
| Constant | 0.642 | 0.022 | 28.764 | 0.000 |

$r^2 = 0.218$ Adjusted $r^2 = 0.076$ $n = 27$ $F = 1.541$ $p = 0.225$

Table 28**1992 linear regression model with RATES92 variable - outliers removed****Dependent Variable - COMSTA92**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.029 | 0.021 | 1.389 | 0.179 |
| NEWS | -0.018 | 0.034 | 0.533 | 0.599 |
| DEBT92 | -0.037 | 0.062 | -0.596 | 0.557 |
| RATES92 | 1.17E-09 | 1.00E-09 | 1.170 | 0.255 |
| VOTE92 | -0.028 | 0.037 | -0.757 | 0.457 |
| Constant | 0.891 | 0.018 | 47.781 | 0.000 |

 $r^2 = 0.298$ Adjusted $r^2 = 0.131$ $n = 27$ $F = 1.786$ $p = 0.159$
Dependent Variable - VOLSTA92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.028 | 0.050 | -0.557 | 0.583 |
| NEWS | 0.187 | 0.083 | 2.243 | 0.035 |
| DEBT92 | -0.094 | 0.154 | -0.611 | 0.547 |
| RATES92 | 6.58E-09 | 2.51E-09 | 2.960 | 0.007 |
| VOTE92 | -0.052 | 0.092 | -0.564 | 0.578 |
| Constant | 0.065 | 0.045 | 1.421 | 0.169 |

 $r^2 = 0.529$ Adjusted $r^2 = 0.422$ $n = 27$ $F = 4.948$ $p = 0.003$
Dependent Variable - DIST92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.002 | 0.089 | -0.027 | 0.978 |
| NEWS | 0.100 | 0.140 | 0.681 | 0.503 |
| DEBT92 | -0.438 | 0.269 | -1.625 | 0.119 |
| RATES92 | -3.13E-09 | 4.28E-09 | -0.732 | 0.472 |
| VOTE92 | -0.229 | 0.163 | -1.400 | 0.176 |
| Constant | 0.664 | 0.079 | 8.356 | 0.000 |

 $r^2 = 0.166$ Adjusted $r^2 = -0.041$ $n = 26$ $F = 0.800$ $p = 0.562$

Table 29

1992 linear regression model with RATES92 variable - outliers removed -
continued

Dependent Variable - STATEM92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.014 | 0.025 | 0.565 | 0.577 |
| NEWS | 0.066 | 0.041 | 1.610 | 0.122 |
| DEBT92 | -0.055 | 0.076 | -0.724 | 0.476 |
| RATES92 | 2.80E-09 | 1.22E-09 | 2.287 | 0.032 |
| VOTE92 | -0.035 | 0.046 | -0.770 | 0.449 |
| Constant | 0.646 | 0.022 | 28.496 | 0.000 |

$r^2 = 0.466$ Adjusted $r^2 = 0.339$ $n = 27$ $F = 3.677$ $p = 0.015$

Dependent Variable - TOTAL92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.012 | 0.035 | 0.334 | 0.742 |
| NEWS | 0.073 | 0.059 | 1.245 | 0.227 |
| DEBT92 | -0.134 | 0.108 | -0.259 | 0.229 |
| RATES92 | 1.57E-09 | 1.71E-09 | 0.919 | 0.369 |
| VOTE92 | -0.075 | 0.065 | -1.146 | 0.265 |
| Constant | 0.650 | 0.031 | 20.409 | 0.000 |

$r^2 = 0.265$ Adjusted $r^2 = 0.082$ $n = 26$ $F = 1.448$ $p = 0.250$

Table 30**1992 linear regression model with RATES92 variable****Dependent Variable - COMSTA92**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.062 | 0.036 | 1.713 | 0.100 |
| NEWS | -0.003 | 0.060 | 0.060 | 0.952 |
| DEBT92 | -0.053 | 0.111 | -0.482 | 0.634 |
| RATES92 | -6.43E-10 | 1.72E-09 | -0.374 | 0.712 |
| VOTE92 | -0.024 | 0.066 | -0.372 | 0.713 |
| Constant | 0.894 | 0.033 | 27.104 | 0.000 |

 $r^2 = 0.126$ Adjusted $r^2 = 0.072$ $n = 28$ $F = 0.637$ $p = 0.673$
Dependent Variable - VOLSTA92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.028 | 0.050 | -0.557 | 0.583 |
| NEWS | 0.187 | 0.083 | 2.243 | 0.035 |
| DEBT92 | -0.094 | 0.154 | -0.611 | 0.547 |
| RATES92 | 7.07E-09 | 2.38E-09 | 2.960 | 0.007 |
| VOTE92 | -0.052 | 0.092 | -0.564 | 0.578 |
| Constant | 0.065 | 0.045 | 1.421 | 0.169 |

 $r^2 = 0.529$ Adjusted $r^2 = 0.422$ $n = 28$ $F = 4.948$ $p = 0.003$
Dependent Variable - DIST92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | -0.026 | 0.096 | -0.272 | 0.788 |
| NEWS | 0.177 | 0.163 | 1.086 | 0.289 |
| DEBT92 | -0.455 | 0.298 | -1.524 | 0.142 |
| RATES92 | -2.53E-09 | 4.58E-09 | -0.553 | 0.585 |
| VOTE92 | -0.229 | 0.181 | -1.264 | 0.220 |
| Constant | 0.621 | 0.088 | 7.063 | 0.000 |

 $r^2 = 0.161$ Adjusted $r^2 = -0.038$ $n = 27$ $F = 0.808$ $p = 0.556$

Table 31**1992 linear regression model with RATES92 variable - continued**

Dependent Variable - STATEM92

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.035 | 0.031 | 1.141 | 0.266 |
| NEWS | 0.053 | 0.051 | 1.030 | 0.314 |
| DEBT92 | -0.065 | 0.095 | -0.690 | 0.497 |
| RATES92 | 1.64E-09 | 1.47E-09 | 1.116 | 0.276 |
| VOTE92 | -0.033 | 0.057 | -0.577 | 0.569 |
| Constant | 0.668 | 0.036 | 18.519 | 0.000 |

 $r^2 = 0.284$ Adjusted $r^2 = 0.121$ $n = 28$ $F = 1.746$ $p = 0.165$ **Dependent Variable - TOTAL92**

| Variable | Estimate (b) | Std Error (SE B) | T | Sig T (p) |
|----------|--------------|------------------|--------|-----------|
| AUDSIZE | 0.021 | 0.038 | 0.548 | 0.589 |
| NEWS | 0.081 | 0.065 | 1.241 | 0.228 |
| DEBT92 | -0.154 | 0.120 | -1.288 | 0.211 |
| RATES92 | 6.87E-10 | 1.84E-09 | 0.373 | 0.713 |
| VOTE92 | -0.078 | 0.073 | -1.068 | 0.297 |
| Constant | 0.642 | 0.035 | 18.146 | 0.000 |

 $r^2 = 0.206$ Adjusted $r^2 = 0.017$ $n = 27$ $F = 1.091$ $p = 0.393$
